EX-96053-A/96083-A/96103-A/96123-A (Human Machine Interface) User Manual

"The Human Machine Interface is where people and technology meet."

Release Date	Revision
Sep 2009	V1.0

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Warning!

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, it may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Electric Shock Hazard – Do not operate the workstation with its back cover removed. There are dangerous high voltages inside.

Disclaimer

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Chapter 1 Getting Started

1.1 Features

- Fanless design
- Intel® Atom™ Z510 1.1GHz CPU built-in, upgrade to Z530 1.6GHz CPU
- 5.7”/8”/10.4”/12.1”High brightness TFT LCD with resolution of 640x480/800x600
- NEMA 4/ IP 65 compliant front panel
- Sealed resistive touch screen
- 512MB DDR2 400MHz DRAM built-in, upgrade to 1GB DDR2 DRAM
- DC 9~32V wide-range power input

1.2 Specifications

Model	EX-96053-A	EX-96083-A	EX-96103-A	EX-96123-A
System				
Processor	Intel® Atom™ Z510 1.1GHz CPU Default, upgrade to Z530 1.6GHz CPU			
System Memory	1GB DDR2 400MHz DRAM default, upgrade to 1GB DDR2 400MHz DRAM			
System Chipset	Intel® US15W			
External I/O Port	2 x USB 2.0 ports, 2 x RJ-45 LAN ports, 1 x RS232 (COM1), 1 x RS422/485 (COM2), 1 x Line-out, 1 x DC power input	2 x USB 2.0 ports, 2 x RJ-45 LAN ports, 1 x RS232 (COM1), 1 x RS422/485 (COM2), 1 x Mic-in, Line-out, 1 x DC power input	2 x USB 2.0 ports, 2 x RJ-45 LAN ports, 1 x RS232 (COM1), 1 x RS422/485 (COM2), 1 x RS232 (COM3), 1 x VGA port, 1 x Mic-in, Line-out, 1 x DC power input	2 x USB 2.0 ports, 2 x RJ-45 LAN ports, 1 x RS232 (COM1), 1 x RS422/485 (COM2), 1 x RS232 (COM3), 1 x VGA port, 1 x Mic-in, Line-out, 1 x DC power input
Storage	1 x 2.5” HDD, 1 x internal CF slot			
OS Support	Windows® CE 5.0, XP Pro, XP embedded			
LCD	EX-96053-A	EX-96083-A	EX-96103-A	EX-96123-A
Display Type	5.7” TFT-LCD	8” TFT-LCD	10.4” TFT-LCD	12.1” TFT-LCD
Max. Resolution	640x480	800x600	800x600	800x600
Max. Color	262K	262K	262K	RGB Vertical stripe
Luminance (cd/m^2)	400	400	250	370
View Angle	H:140° / V:100°	H:130° / V:120°	H:130° / V:110°	H:140° / V:110°

Backlight Lifetime	40,000hrs, LED Backlight	40,000hrs, LED Backlight	20,000hrs, CCFL	50,000hrs, LED Backlight
Touch Screen				
Type	Analog resistive			
Light Transmission	80%			
Power Supply				
Power Input	DC 9~32V			
Mechanical	EX-96053-A	EX-96083-A	EX-96103-A	EX-96123-A
Construction	Plastic molding front panel and metal housing / Black	Plastic molding front panel and plastic housing / Black	Plastic molding front panel and plastic housing / Black	Plastic molding front panel and plastic housing / Black
IP Rating	NEMA 4 /IP 65 compliant front panel	NEMA 4 /IP 65 compliant front panel	NEMA 4 /IP 65 compliant front panel	NEMA 4 /IP 65 compliant front panel
Mounting	Panel / VESA 75x75 Mount	Panel / VESA 75x75 Mount	Panel / VESA 75x75 Mount	Panel / VESA 75x75 Mount
Dimension	204(W)x149(H)x65(D)	231(W)x176(H)x57(D)	270(W)x212(H)x57(D)	317(W)x243(H)x58(D)
Environmental				
Operating Temperature	0~50 ° C			
Storage Temperature	-20~60 ° C			
Storage Humidity	10~90% @40℃, non-condensing			
Certificate	Meet CE/FCC Class A			

1.3 Dimensions

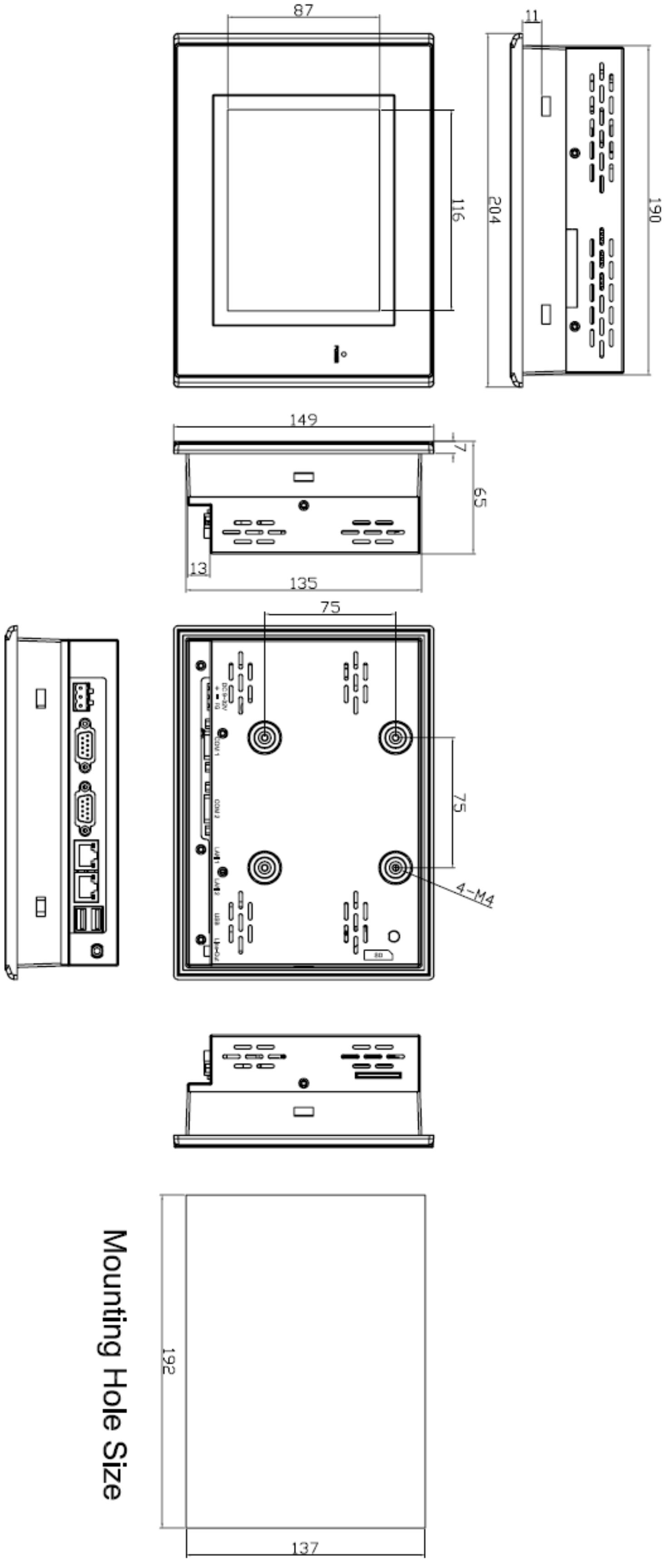


Figure 1.1: Dimensions of the EX-96053-A

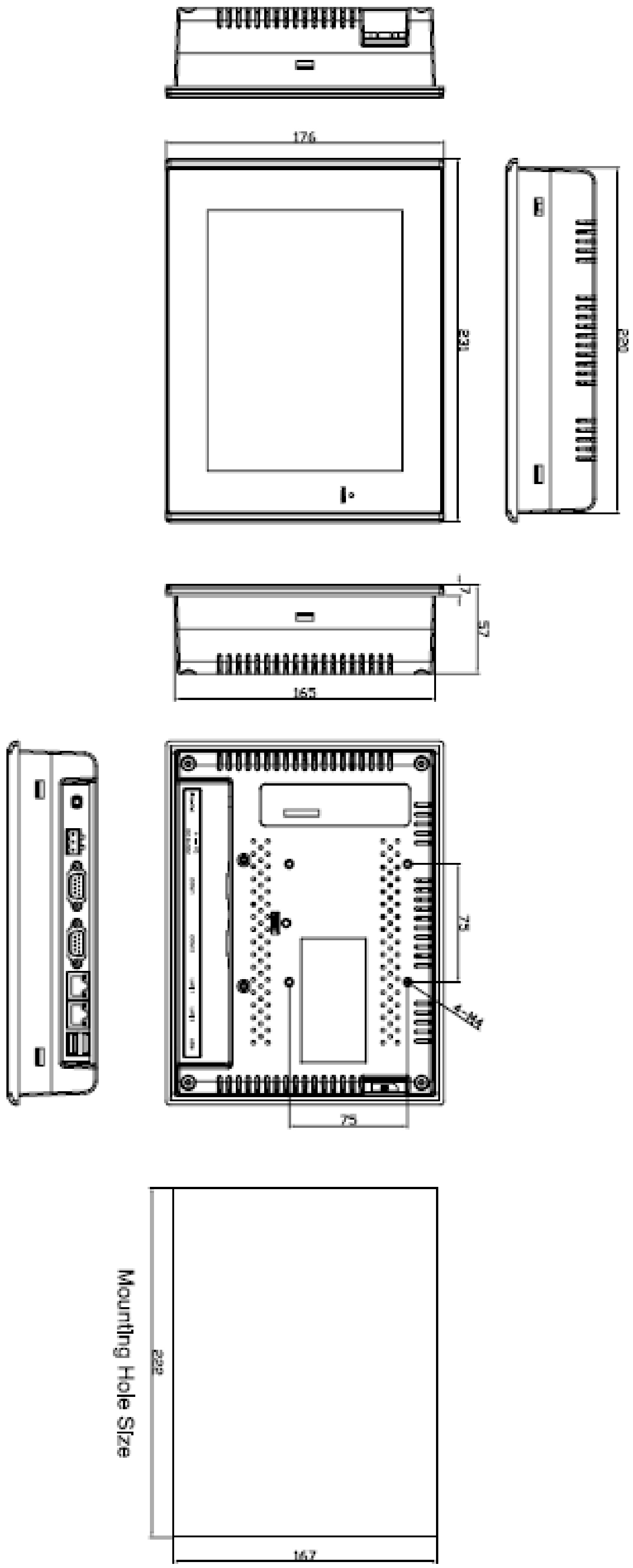


Figure 1.2: Dimensions of the EX-96083-A

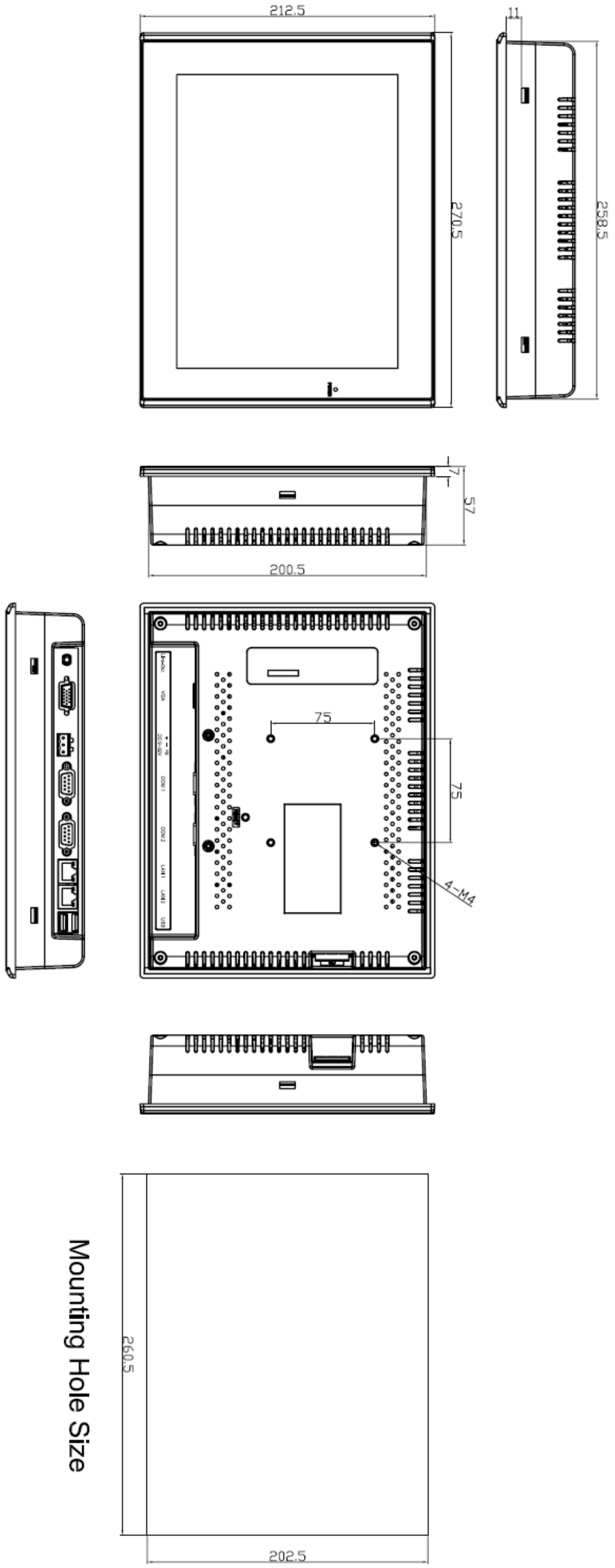


Figure 1.3: Dimensions of the EX-96103-A

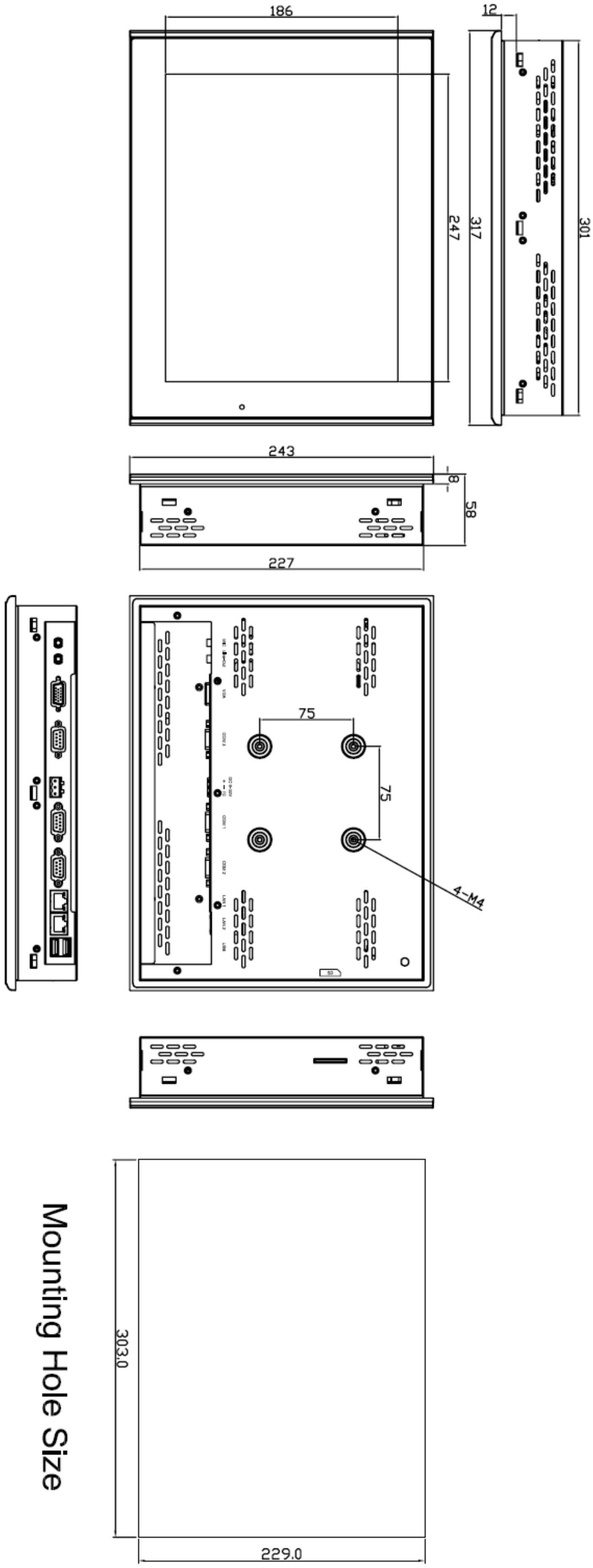


Figure 1.4: Dimensions of the EX-96123-A

1.4 Brief Description of the EX-96053-A/96083-A/96103-A/96123-A

The EX-96053-A/96083-A/96103-A/96123-A is a power-optimized and delivers robust performance-per-watt for cost-effective embedded HMI. The powered by an Atom™ Z510/530 processor, implemented in 45nm technology. It comes with a internal compact flash, 2.5-inch hard disk drive, DDR2 memory, 2 serial ports, audio, 2 Ethernet, DC input, and 2 USB ports. The unit supports Windows XP, Windows XPP and Embedded The compact, fanless touch panel computer is ideal for use as Web Browser, Terminal and HMI at all levels of automation control.



Figure 1.5: Front View of EX-96053-A/96083-A/96103-A/96123-A



Figure 1.6: Rear View of EX-96123-A

Chapter 2 Installation

2.1 Installation of the EX-96053-A/96083-A/96103-A/96123-A Fanless Computer

2.1.1 Removal of Chassis Cover

There are screws to deal with when enclosing or removing the chassis.



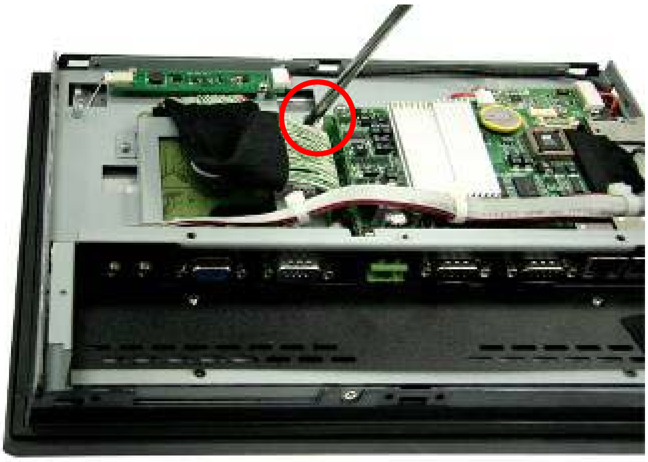
2.1.2 Removing Chassis Cover

Remove the chassis cover by loosened screws



2.1.3 Removing HDD Rack from Its Place

Just take off the HDD rack from its place and get ready to install the HDD.



2.1.4 Connecting Cable to HDD

Connect the cable to the HDD, making sure that the red stripe of the cable is on the right side.



2.1.5 Closing Chassis

Close the chassis in the same way as it was opened. Just tighten the screws as circled and the installation of the EX-96053-A/96083-A/96103-A/96123-A is completely done.



2.2 Panel Mounting

The EX-96053-A/96083-A/96103-A/96123-A HMI Controller is designed to be panel-mounted as shown in Figure 2.1. Just carefully place the unit through the hole and tighten the given 9 screws from the rear to secure the mounting.

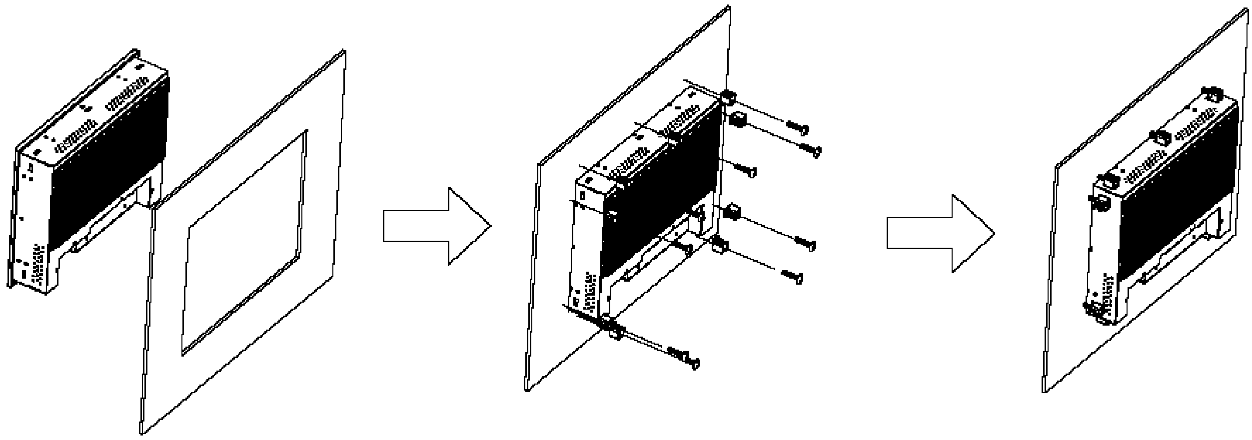


Figure 2.1: Panel-mounting

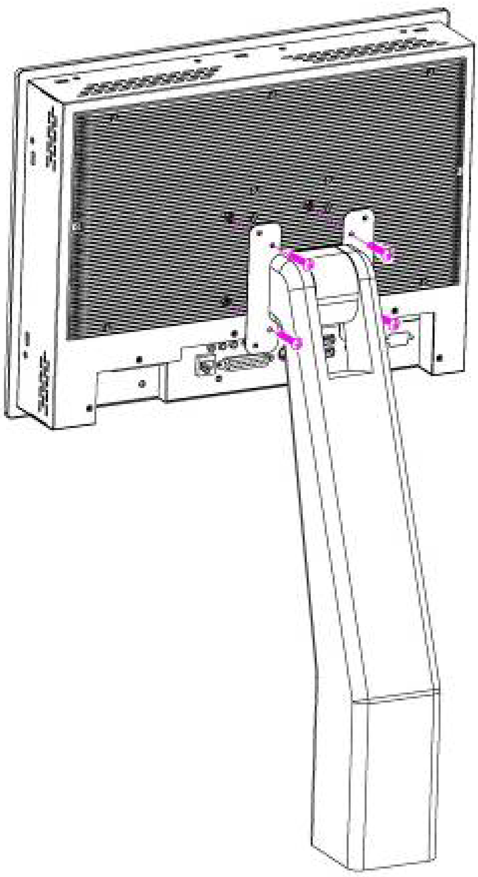
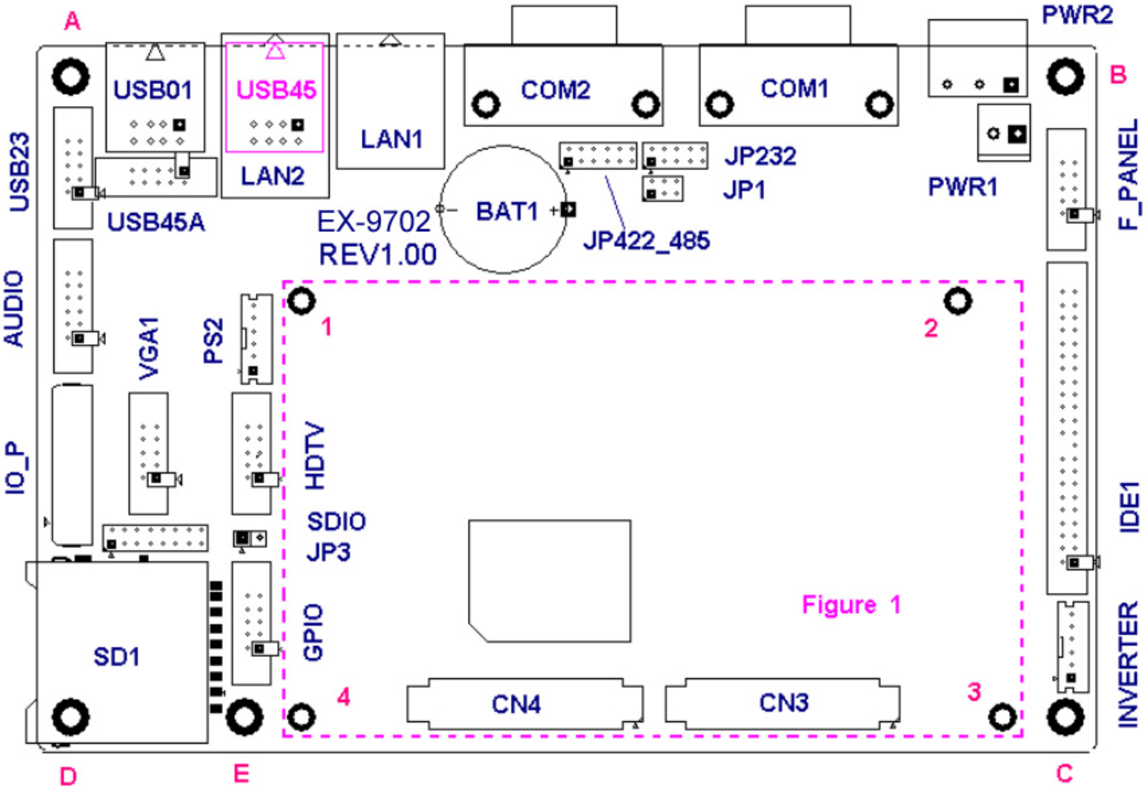
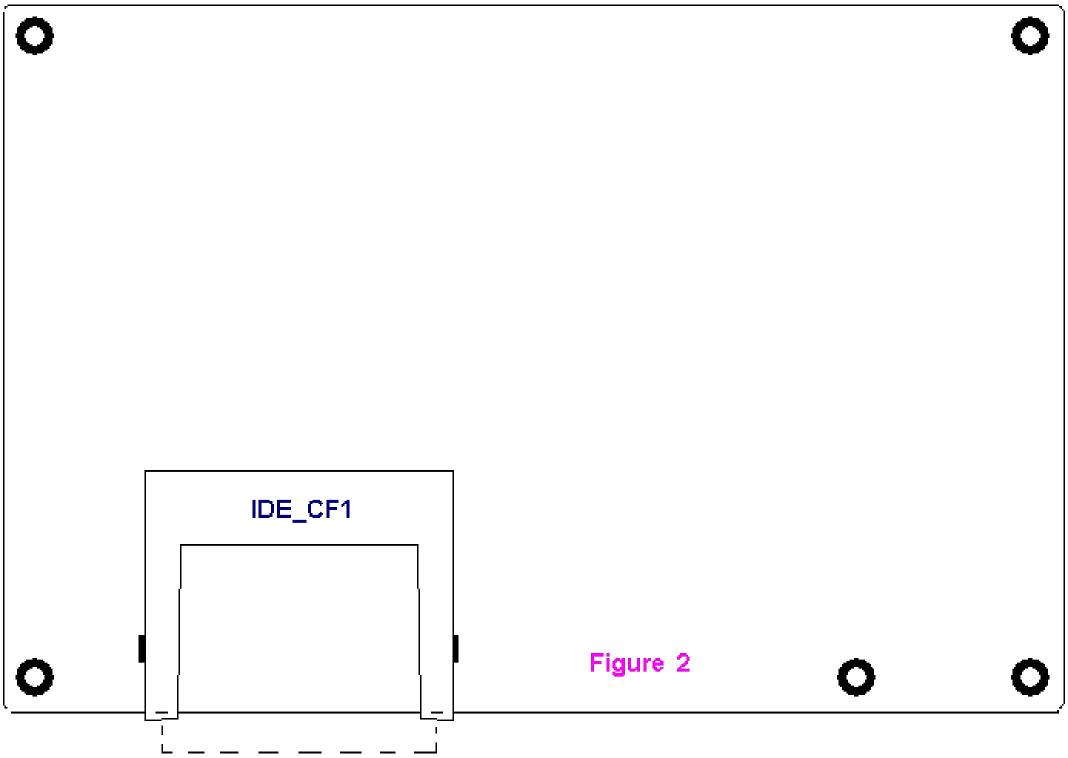


Figure 2.2: VESA Mount of EX-96053-A/96083-A/96103-A/96123-A

2.3 Component Locations



EX-9702 Component Side



EX-9702 Solder Side

2.4 Jumpers Setting & Connectors

PWR1

Pin No.	Description
1	VCC (6~30V)
2	Ground

PWR2

Pin No.	Description
1	VCC (6~30V)
2	Ground
3	Earth Ground

COM1 : JP1 RS232 / DB9

Pin No.	Description	JP1
1	DCD# (Data Carrier Detect)	
2	RXD (Received Data)	
3	TXD (Transmit Data)	
4	DTR (Data Terminal Ready)	
5	Ground	
6	DSR (Data Set Ready)	
7	RTS (Request To Send)	
8	CTS (Clear To Send)	
9	Selectable	
	RI (Ring Indicator)	1-2 (Jumper Close)
	5V Standby	3-4 (Jumper Close)
	12V Standby	5-6 (Jumper Close)

COM2 / JP232、JP422_JP485

COM2 / RS232

Pin No.	Description	JP232
1	DCD# (Data Carrier Detect)	1-2 (Jumper Close) 3-4 (Jumper Close) 5-6 (Jumper Close) 7-8 (Jumper Close)
2	RXD (Received Data)	
3	TXD (Transmit Data)	
4	DTR (Data Terminal Ready)	
5	Ground	
6	DSR (Data Set Ready)	

7	RTS (Request To Send)	9-10(Jumper Close)
8	CTS (Clear To Send)	
9	RI (Ring Indicator)	
JP422_485 Open		

COM2 / RS422

Pin No.	Description	JP422_485
1	422_TX-	1-2 (Jumper Close) 3-4 (Jumper Close) 5-6 (Jumper Close) 7-8 (Jumper Close) 11-12(JumperClose)
2	422_RX-	
3	422_RX+	
4	422_TX+	
5	Ground	
6	NC	
7	NC	
8	NC	
9	NC	
JP232 Open		

COM2 / RS485

Pin No.	Description	JP422_485
1	485_D-	1-2 (Jumper Close) 3-4 (Jumper Close) 9-10(Jumper Close)
2	NC	
3	NC	
4	485_D+	
5	Ground	
6	NC	
7	NC	
8	NC	
9	NC	
JP232 Open		

LAN1

10/100/1000 M LAN RJ45 / RTL8111C/D。

LAN2

10/100/1000 M LAN RJ45 / RTL8111C/D。

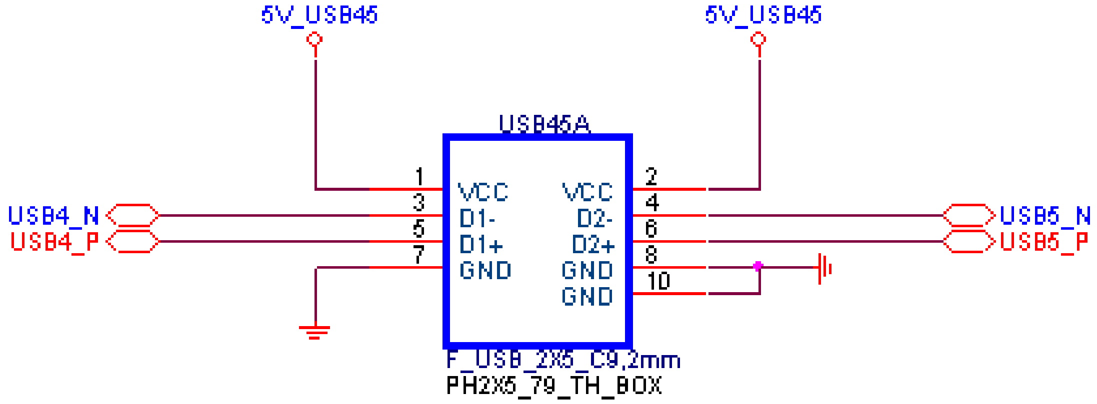
USB45

Standard USB 2.0

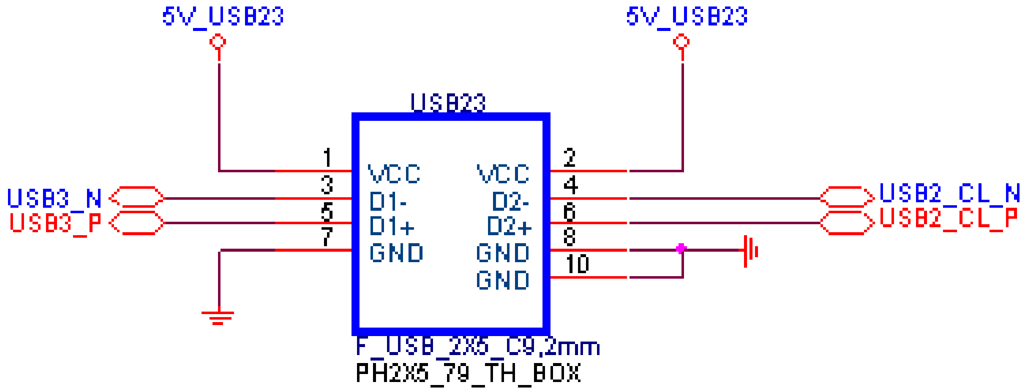
USB01

Standard USB 2.0

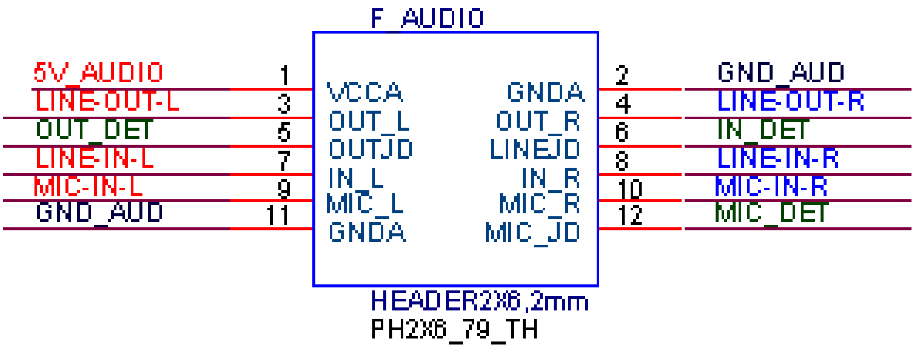
USB45A Pin Definition



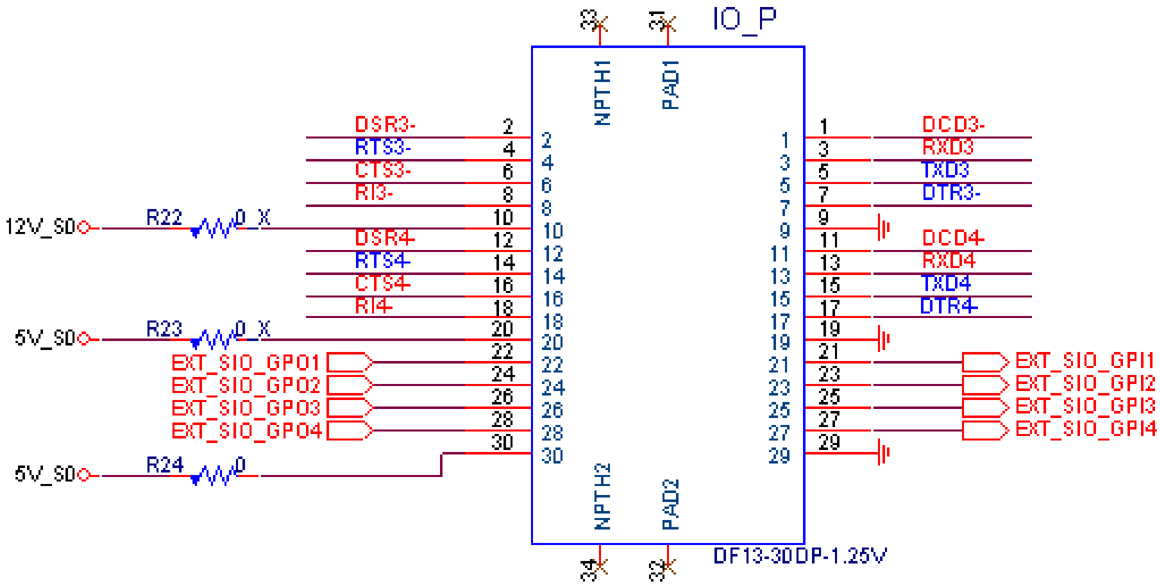
USB23 Pin Definition



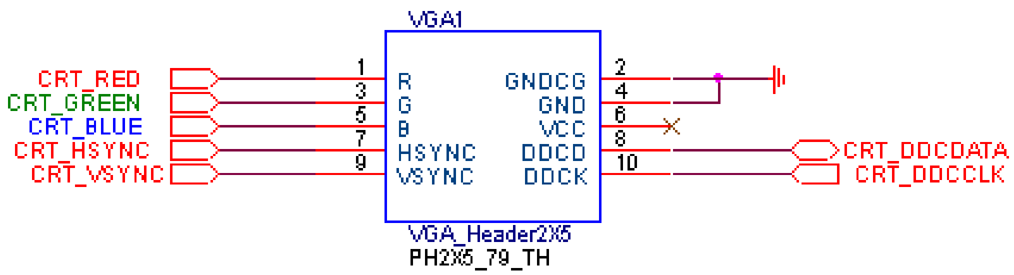
AUDIO Pin Definition



IO_P Pin Definition



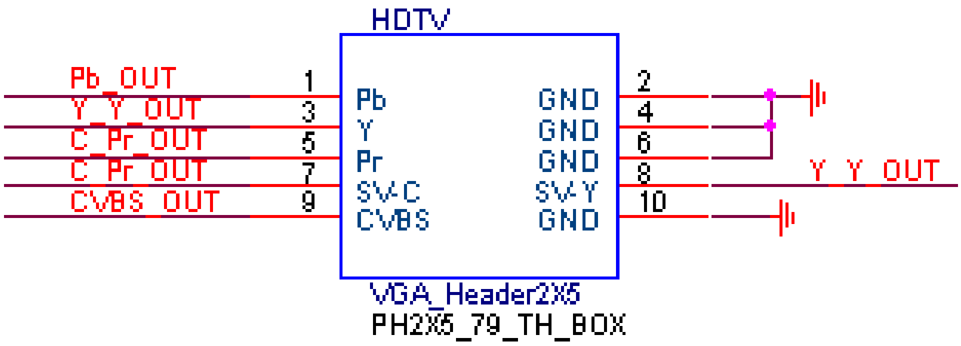
VGA1 Pin Definition



PS2 Pin Definition

Pin No.	Description
1	5V
2	PS/2 Keyboard Data
3	PS/2 Keyboard Clock
4	PS/2 Mouse Data
5	PS/2 Mouse Clock
6	Ground

HDTV Pin Definition

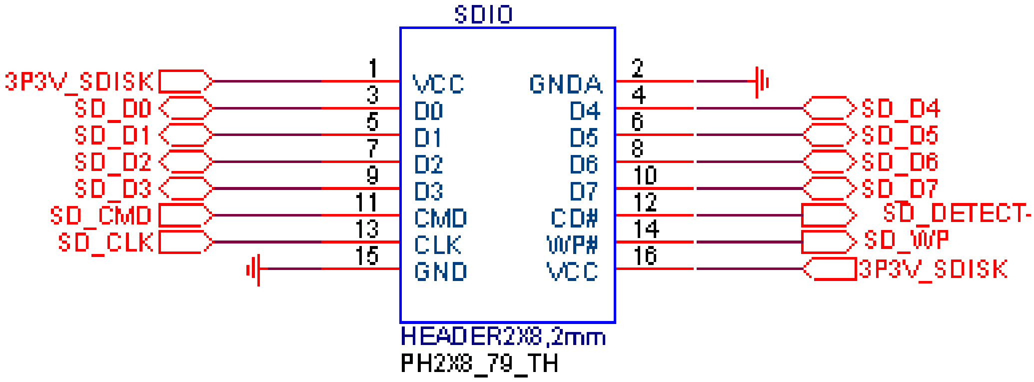


YPbPr：Pin1、2、3、4、5

S-Video：Pin6、7、8

CVBS：Pin 9、10

SDIO Pin Definition



SD1

Secure Digital Card Slot

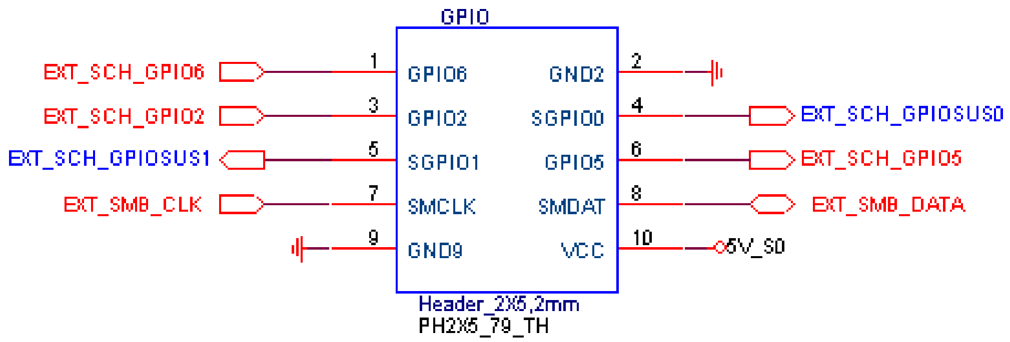
JP3

System power mode setting

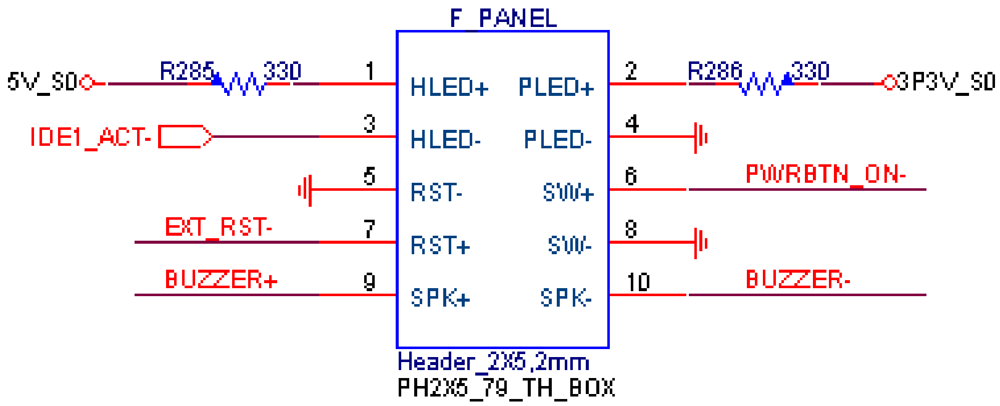
Non Jumper: Support ATX mode.

With Jumper: Support AT mode

GPIO Pin Definition



F_PANEL: Pin Definition



IDE1 : IDE1 44 Pin connector, Pin Definition

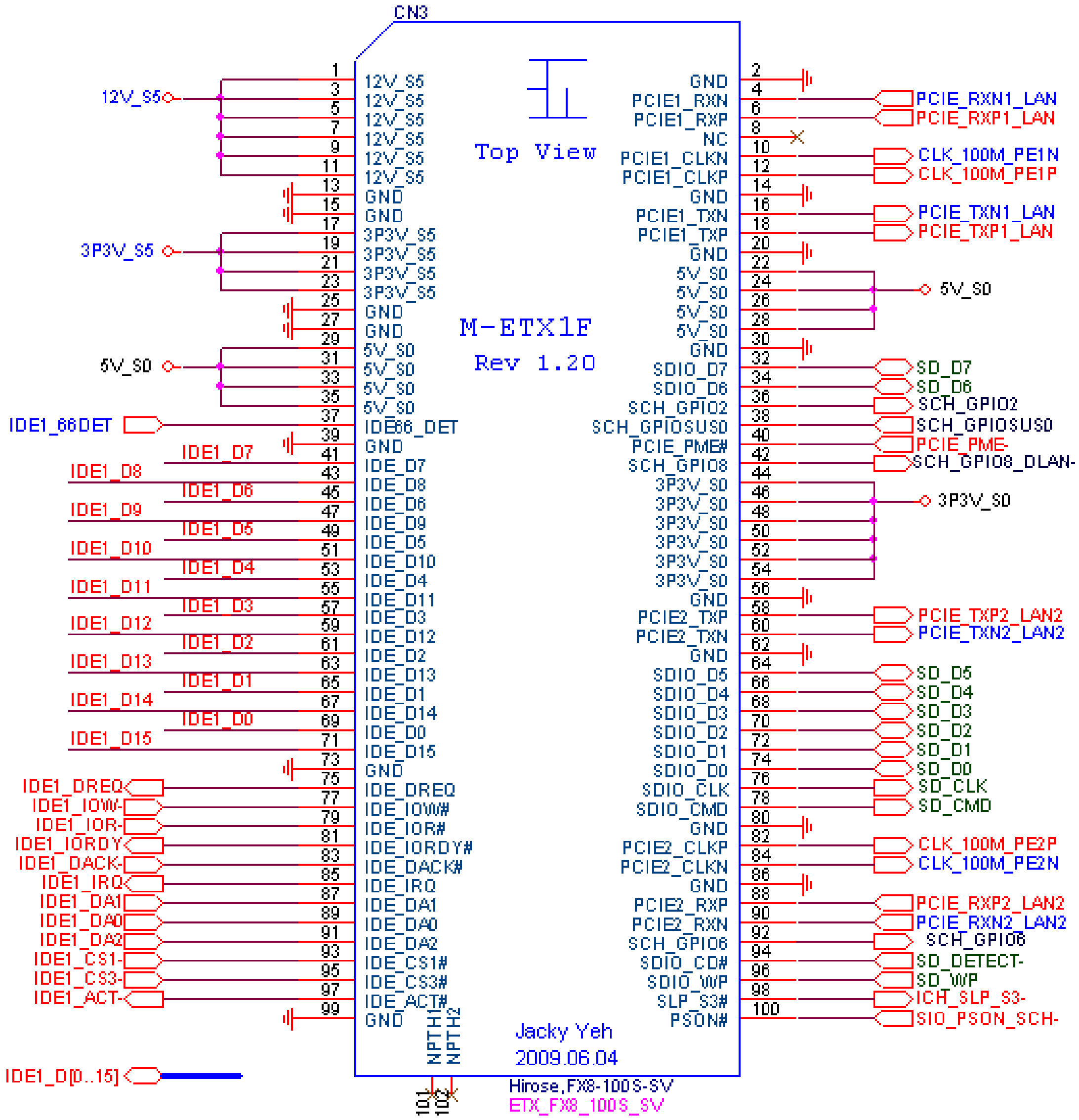
Pin No.	Description	Pin No.	Description
1	IDE_RST#	2	GND
3	IDE_D7	4	IDE_D8
5	IDE_D6	6	IDE_D9
7	IDE_D5	8	IDE_D10
9	IDE_D4	10	IDE_D11
11	IDE_D3	12	IDE_D12
13	IDE_D2	14	IDE_D13
15	IDE_D1	16	IDE_D14
17	IDE_D0	18	IDE_D15
19	GND	20	NC
21	DREQ#	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IORDY	28	CSEL
29	DACK#	30	GND
31	INTRQ	32	IOCS16
33	DA1	34	PDIGA
35	DA0	36	DA2

37	CS0#	38	CS1#
39	ACT#	40	NC
41	5VCC	42	5VCC
43	GND	44	NC

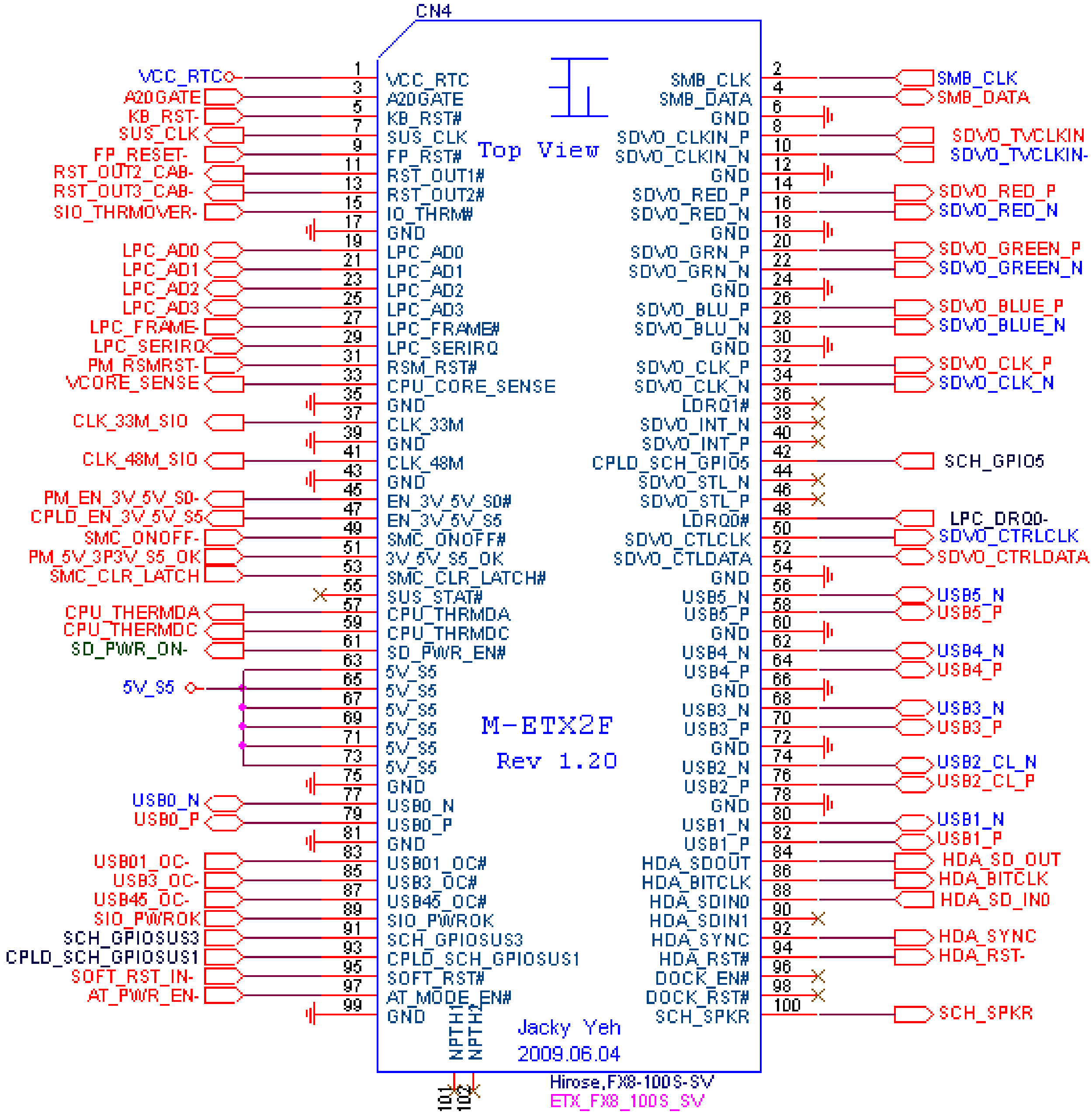
INVERTER: Pin Definition

Pin No.	Description
1	12V
2	12V
3	Ground
4	Ground
5	5V
6	RSV

CN3 Pin Definition



CN4 Pin Definition



Chapter 3 BIOS Setup

3.1 System Test and Initialization

These routines test and initialize board hardware. If the routines encounter an error during the tests, you will either hear a few short beeps or see an error message on the screen. There are two kinds of errors: fatal and non-fatal. The system can usually continue the boot up sequence with non-fatal errors. Non-fatal error messages usually appear on the screen along with the following instructions:

Press <F1> to RESUME

Write down the message and press the F1 key to continue the boot up sequence.

System configuration verification

These routines check the current system configuration against the values stored in the CMOS memory. If they do not match, the program outputs an error message. You will then need to run the BIOS setup program to set the configuration information in memory.

There are three situations in which you will need to change the CMOS settings:

1. You are starting your system for the first time
2. You have changed the hardware attached to your system
3. The CMOS memory has lost power and the configuration information has been erased.

3.2 Award BIOS Setup

Awards BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

Entering Setup

Power on the computer and press <Del> immediately. This will allow you to enter Setup.

Standard CMOS Features

Use this menu for basic system configuration. (Date, time, IDE, etc.)

Advanced BIOS Features

Use this menu to set the advanced features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals. (Primary slave, secondary slave, keyboard, mouse etc.)

Power Management Setup

Use this menu to specify your settings for power management. (HDD power down, power on by ring, KB wake up, etc.)

PnP/PCI Configurations

This entry appears if your system supports PnP/PCI.

PC Health Status

This menu allows you to set the shutdown temperature for your system.

Frequency/Voltage Control

Use this menu to specify your settings for auto detect DIMM/PCI clock and spread spectrum.

Load Fail-Safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

Load Optimized Defaults

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While AWARD has designated the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

Set Supervisor/User Password

Use this menu to set Supervisor/User Passwords.

Save and Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Chapter 4 Installation of Drivers

This chapter describes the installation procedures for software and drivers under the windows XP. The software and drivers are included with the motherboard. The contents include **Intel chipset driver** **VGA driver** **LAN drivers** **Audio driver**
Installation instructions are given below.

> **Important Note:**
> After installing your Windows operating system (Windows XP), you must install first the Intel Chipset Software Installation Utility before proceeding with the installation of drivers.

I



4.1 Intel Chipset Driver

To install the Intel chipset driver, please follow the steps below.

Step 1: Select Chipset from the list



Follow the step-by-step installation process to install the driver.




Intel® Chipset Device Software
Intel® Chipset Device Software
Welcome to the Setup Program
This setup program will install the Intel® Chipset Device Software onto this computer. It is strongly recommended that you exit all programs before continuing.
< Back
Next >
Cancel
Intel® Installation Framework


Intel® Chipset Device Software
Intel® Chipset Device Software
License Agreement
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
< Back
Yes
No
Intel® Installation Framework


Intel® Chipset Device Software
Intel® Chipset Device Software
Readme File Information
Refer to the Readme file below to view the system requirements and installation information.
Press the Page Down key to view the rest of the file.
****
* Product: Intel(R) Chipset Device Software
* Release: Production Version
* Version: 8.8.0.1011
* Target Chipset#: Intel(R) SCH Family
* Date: April 02 2008
****
< Back
Next >
Cancel
Intel® Installation Framework


Intel® Chipset Device Software
Intel® Chipset Device Software
Setup Progress
Please wait while the following setup operations are performed:
Copying File: CSVer.dll
Creating Key: HKLM\SOFTWARE\Intel\Infinst\Language=ENU,sz
Installing Driver: Intel(R) SCH Family PCI Express Root Port 1 - 8110
Version: 8.8.0.1001
Installing Driver: Intel(R) SCH Family PCI Express Root Port 3 - 8112
Version: 8.8.0.1001
Installing Driver: Intel(R) SCH LPC Interface Controller - 8119
Version: 8.8.0.1001
Next
Intel® Installation Framework





Click Finish, When the installation process is complete, the Setup Complete screen appears. See as picture.

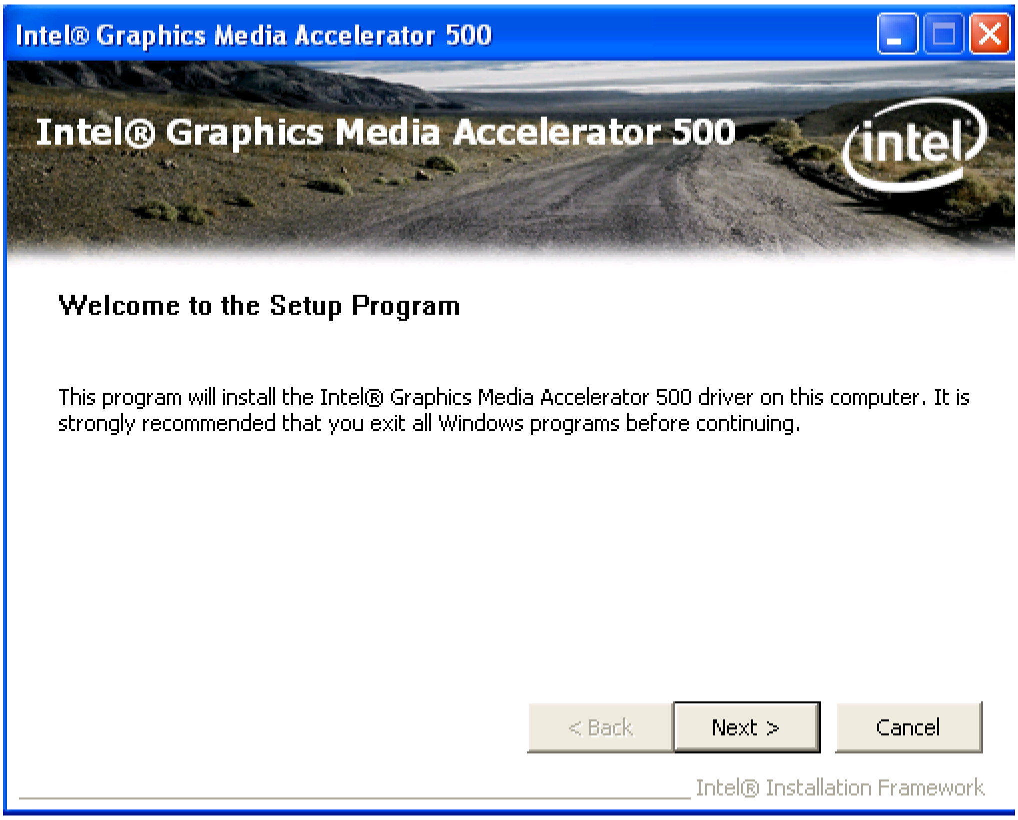
4.2 Intel Graphics Media Accelerator Driver

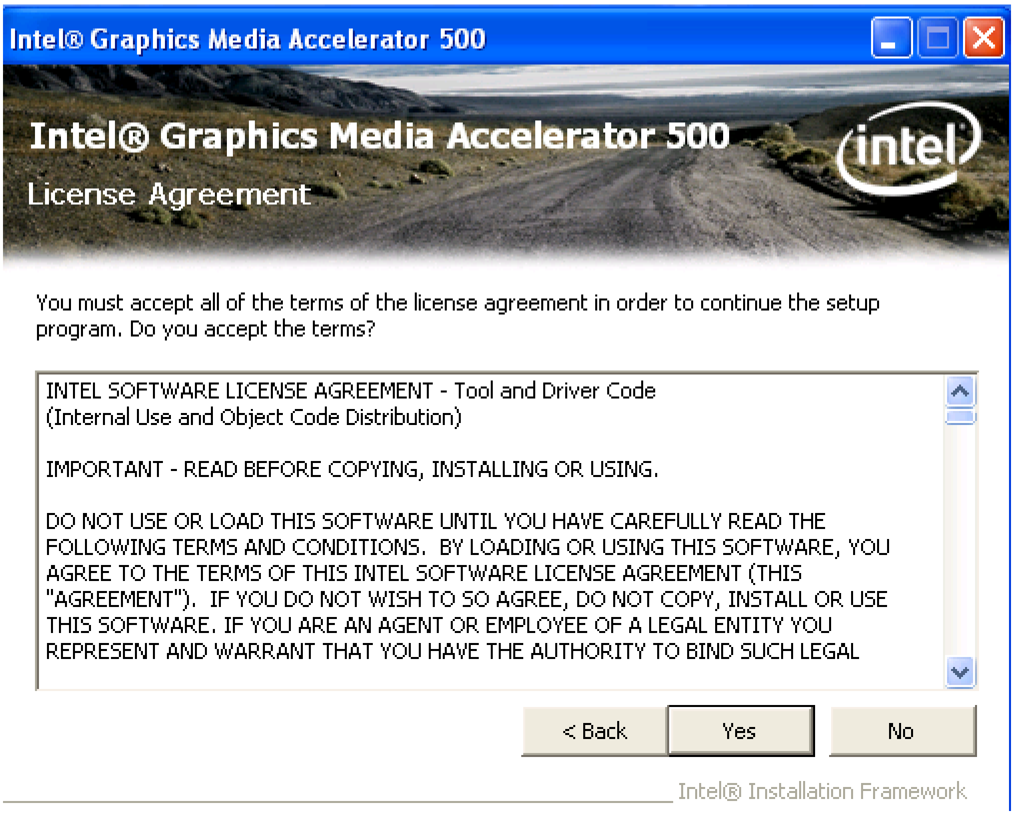
To install the VGA drivers, follow the steps below to proceed with the installation.

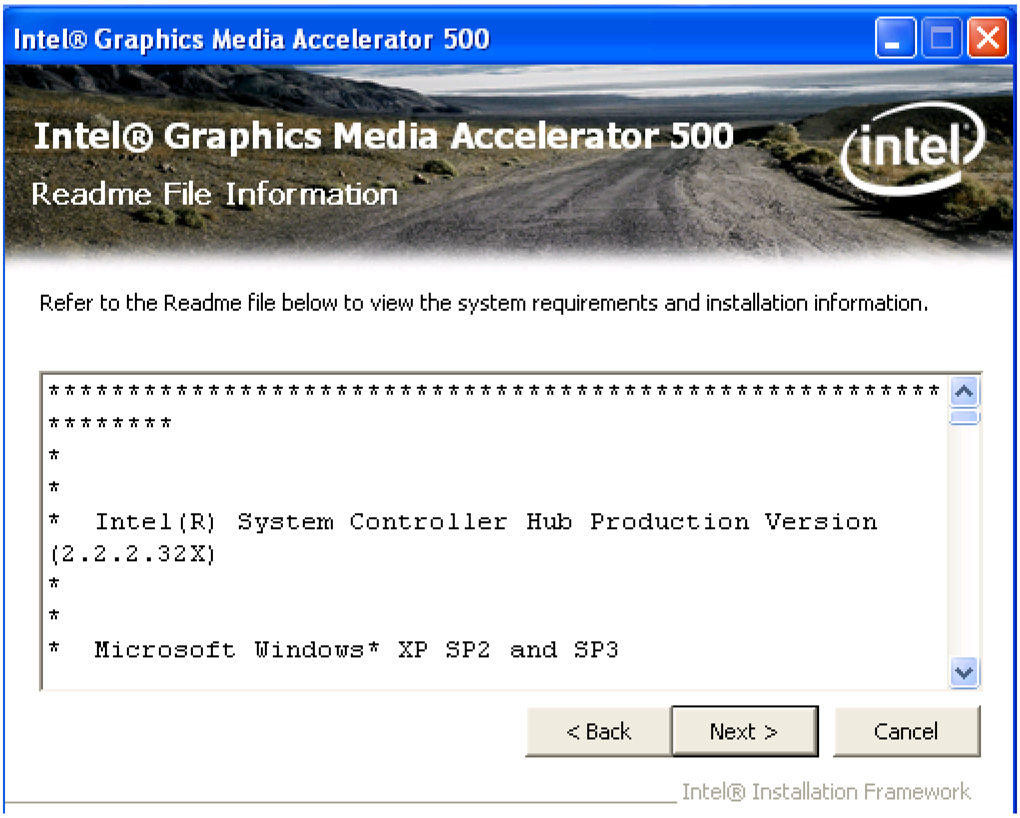
1. Click Intel(R) Chipset Family Graphics Driver.

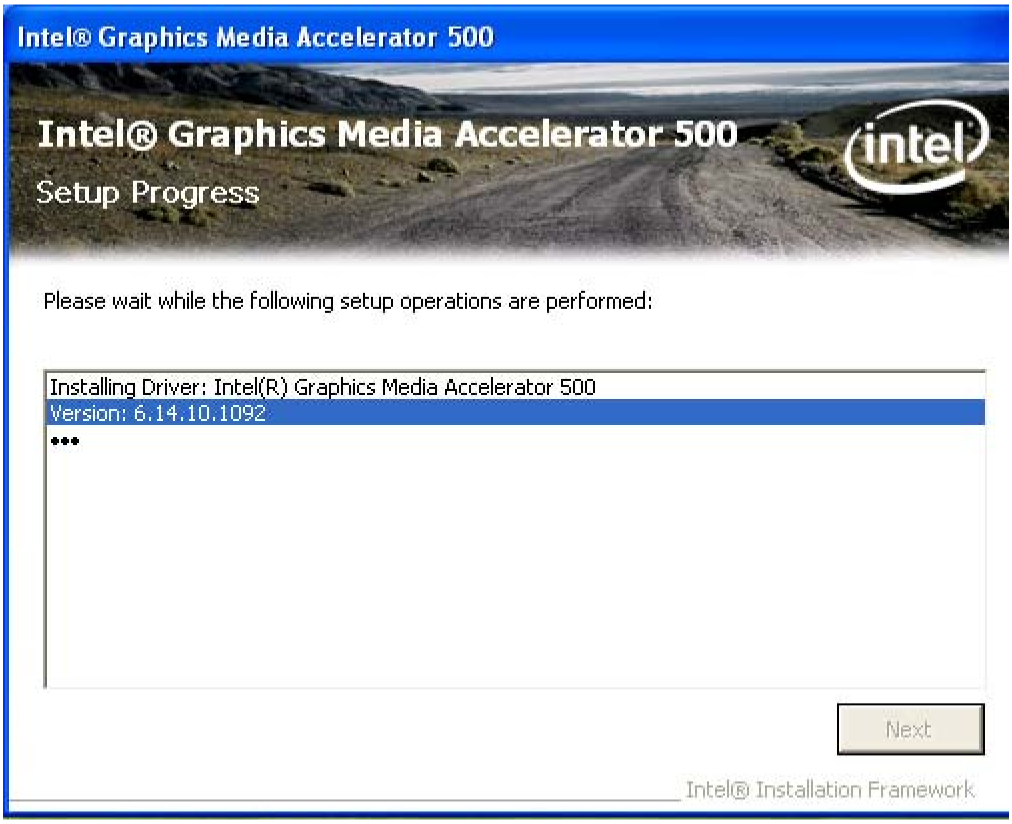


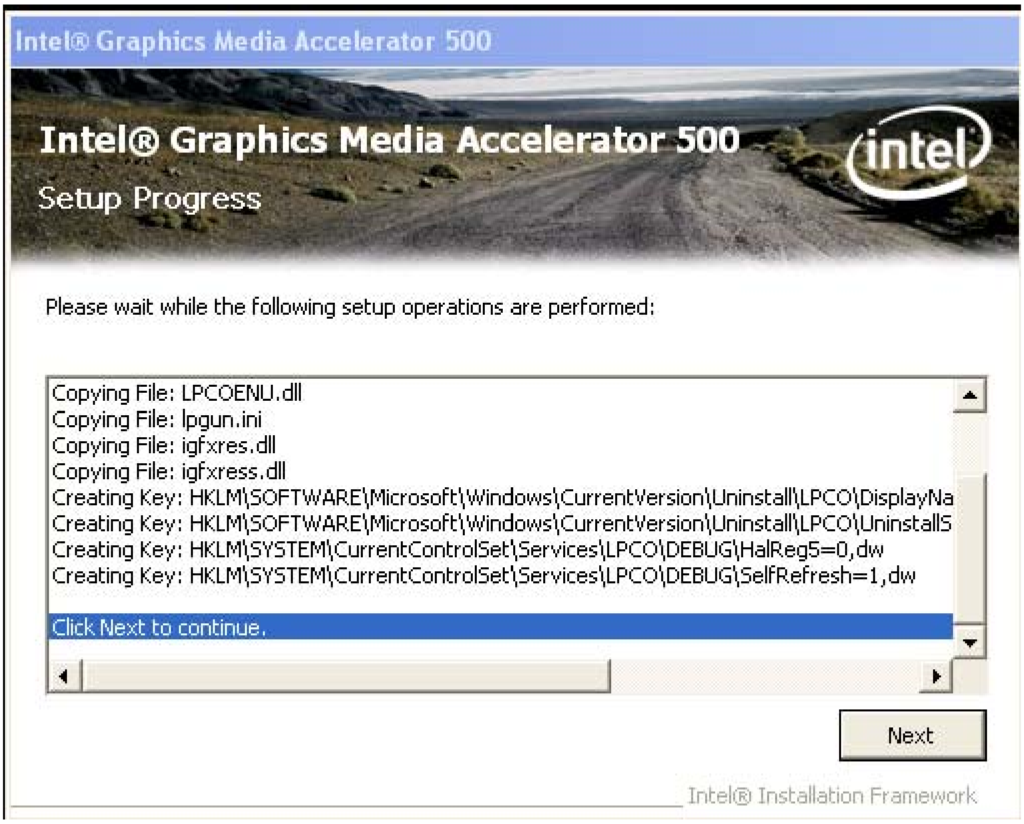
Follow the step-by-step installation process to install the Graphics Media Accelerator driver.

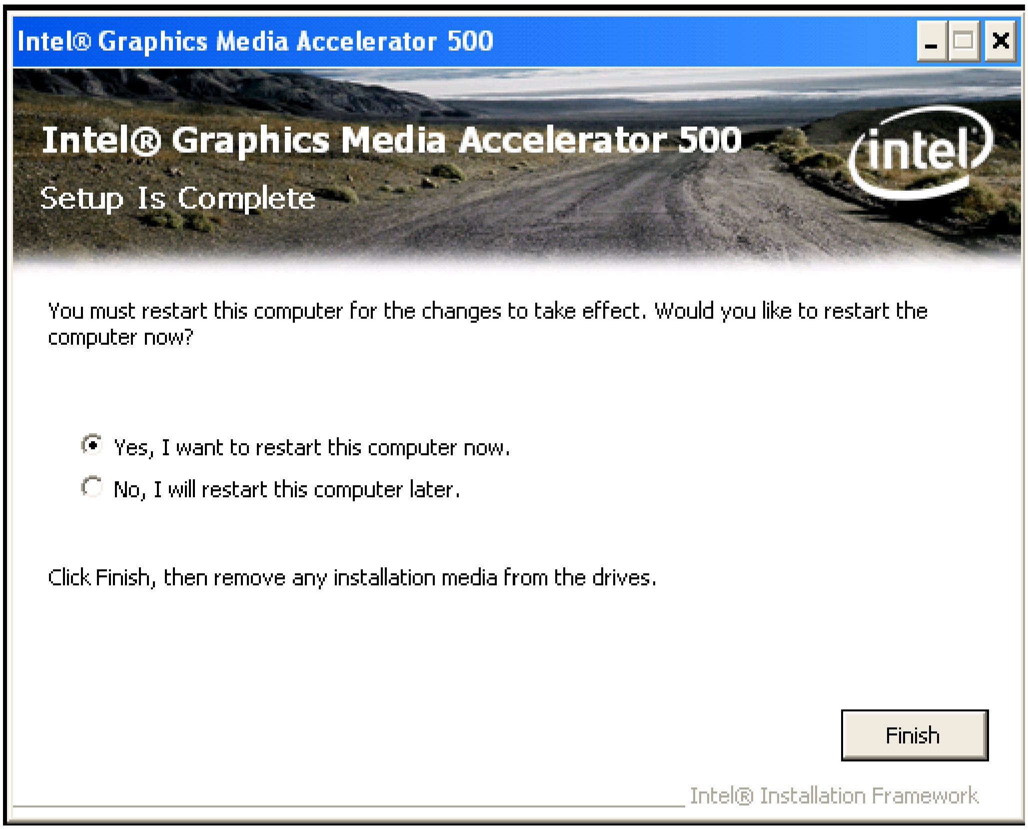



Intel® Graphics Media Accelerator 500
Intel® Graphics Media Accelerator 500
License Agreement
intel
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
INTEL SOFTWARE LICENSE AGREEMENT - Tool and Driver Code
(Internal Use and Object Code Distribution)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
DO NOT USE OR LOAD THIS SOFTWARE UNTIL YOU HAVE CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS. BY LOADING OR USING THIS SOFTWARE, YOU AGREE TO THE TERMS OF THIS INTEL SOFTWARE LICENSE AGREEMENT (THIS "AGREEMENT"). IF YOU DO NOT WISH TO SO AGREE, DO NOT COPY, INSTALL OR USE THIS SOFTWARE. IF YOU ARE AN AGENT OR EMPLOYEE OF A LEGAL ENTITY YOU REPRESENT AND WARRANT THAT YOU HAVE THE AUTHORITY TO BIND SUCH LEGAL
< Back
Yes
No
Intel® Installation Framework


Intel® Graphics Media Accelerator 500
Intel® Graphics Media Accelerator 500
Readme File Information
intel
Refer to the Readme file below to view the system requirements and installation information.
* Intel(R) System Controller Hub Production Version (2.2.2.32X)
* Microsoft Windows* XP SP2 and SP3
< Back
Next >
Cancel
Intel® Installation Framework


Intel® Graphics Media Accelerator 500
Intel® Graphics Media Accelerator 500
Setup Progress
Please wait while the following setup operations are performed:
Installing Driver: Intel(R) Graphics Media Accelerator 500
Version: 6.14.10.1092
•••
Next
Intel® Installation Framework


Intel® Graphics Media Accelerator 500
Intel® Graphics Media Accelerator 500
Setup Progress
Please wait while the following setup operations are performed:
Copying File: LPCOENU.dll
Copying File: lpgun.ini
Copying File: igfxres.dll
Copying File: igfxress.dll
Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\LPCO\DisplayNa
Creating Key: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\LPCO\UninstallS
Creating Key: HKLM\SYSTEM\CurrentControlSet\Services\LPCO\DEBUG\HalReg5=0,dw
Creating Key: HKLM\SYSTEM\CurrentControlSet\Services\LPCO\DEBUG\SelfRefresh=1,dw
Click Next to continue.
Next
Intel® Installation Framework



Click FINISH; A Driver Installation Complete.

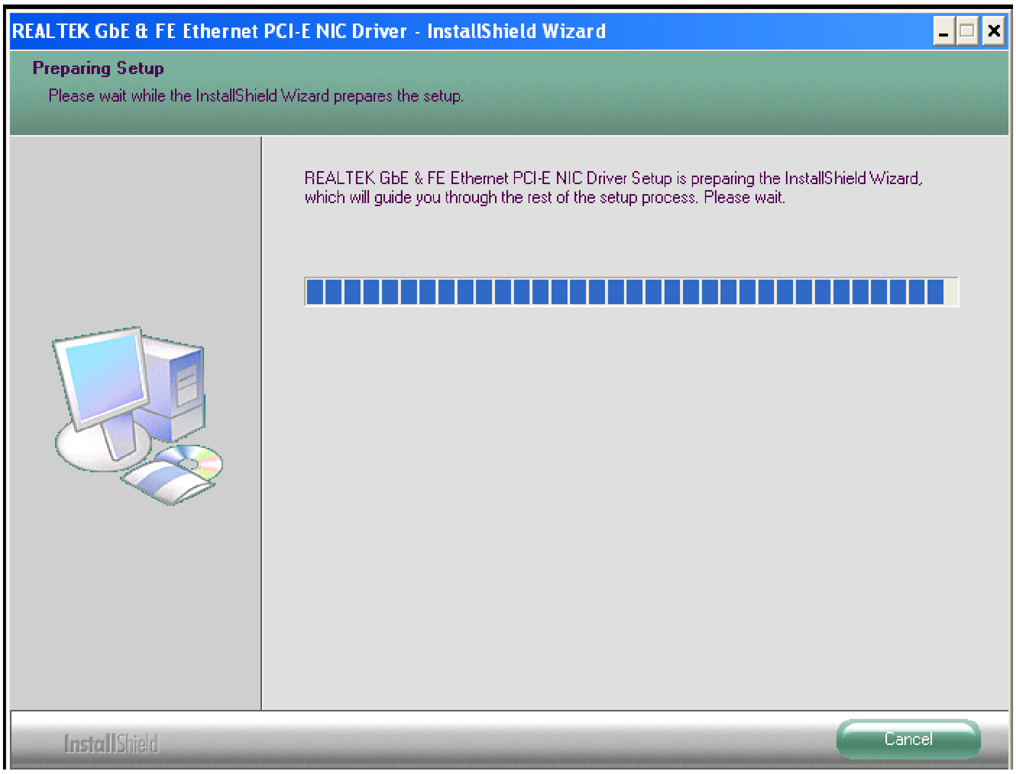
4.3 Intel LAN Device Driver

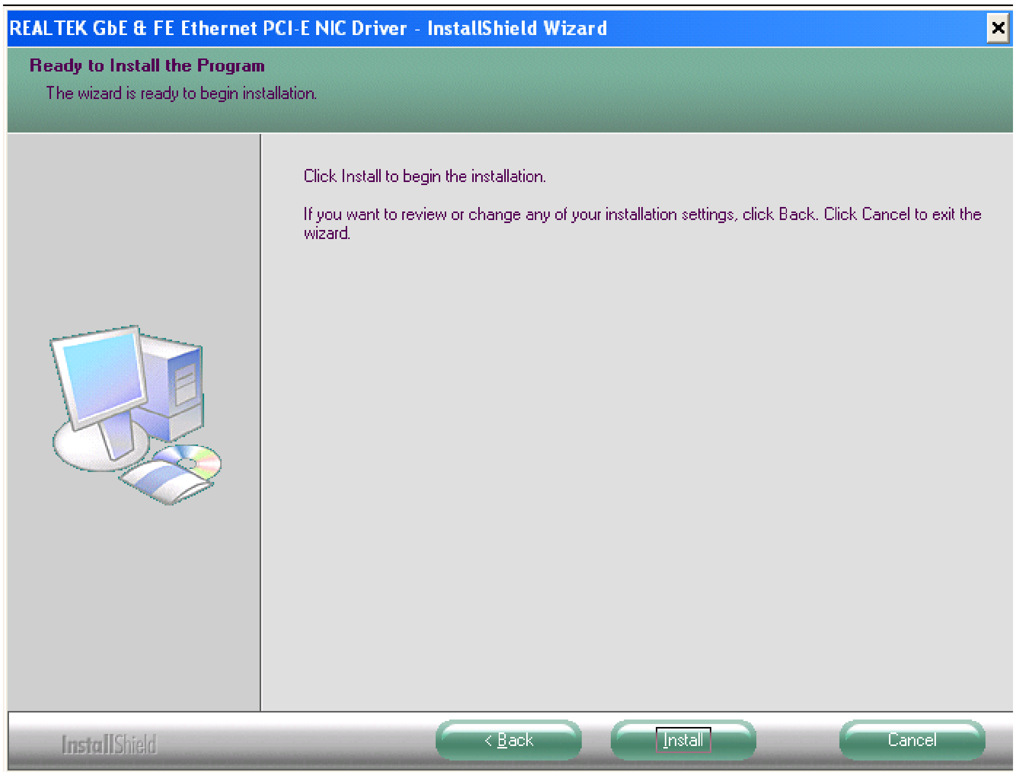
To install the Intel Gigabit LAN connect device driver, please follow the steps below.

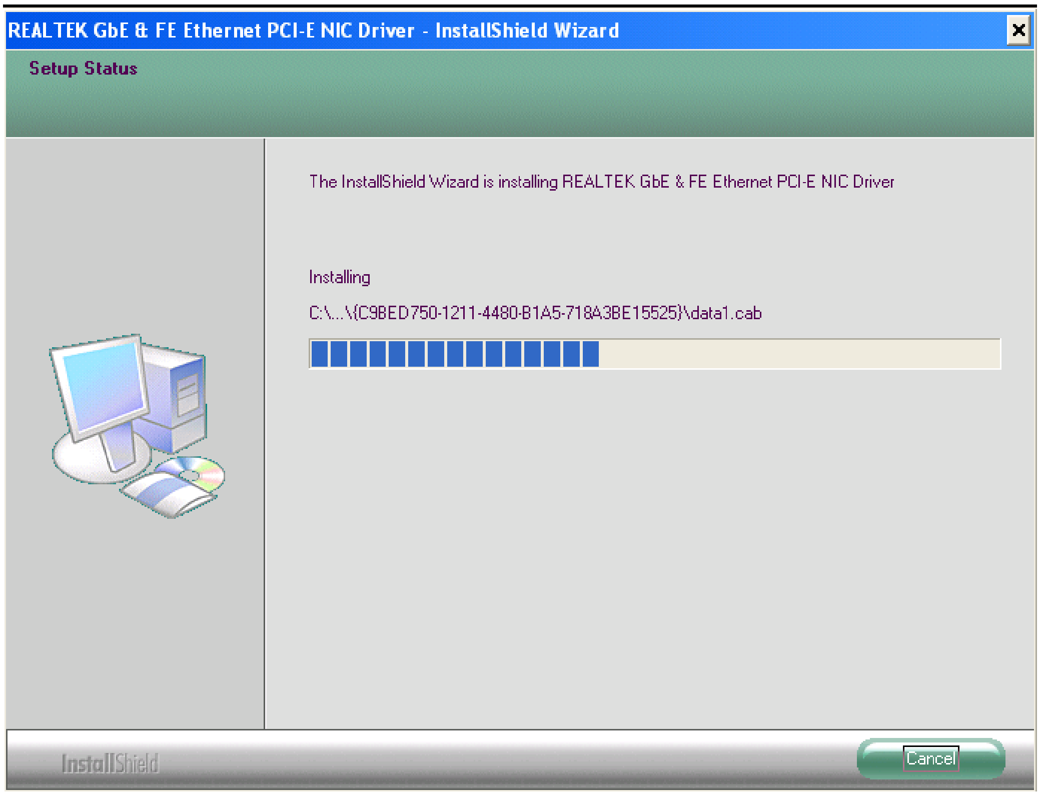
Select LAN from the list

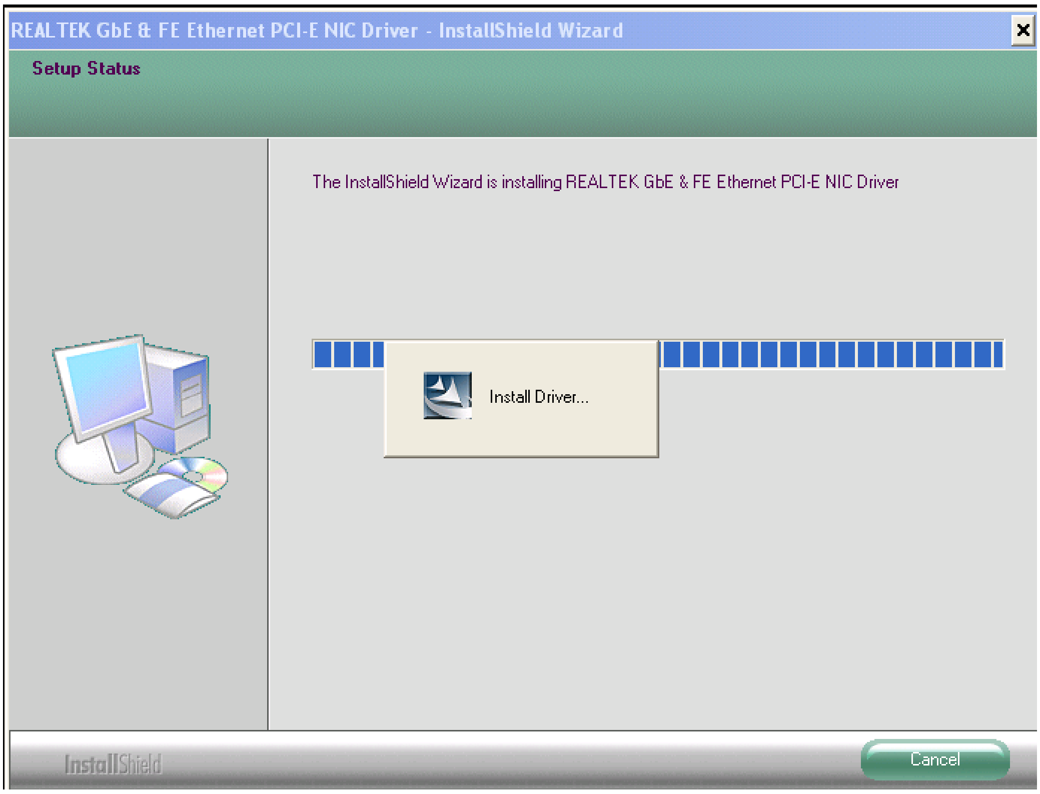


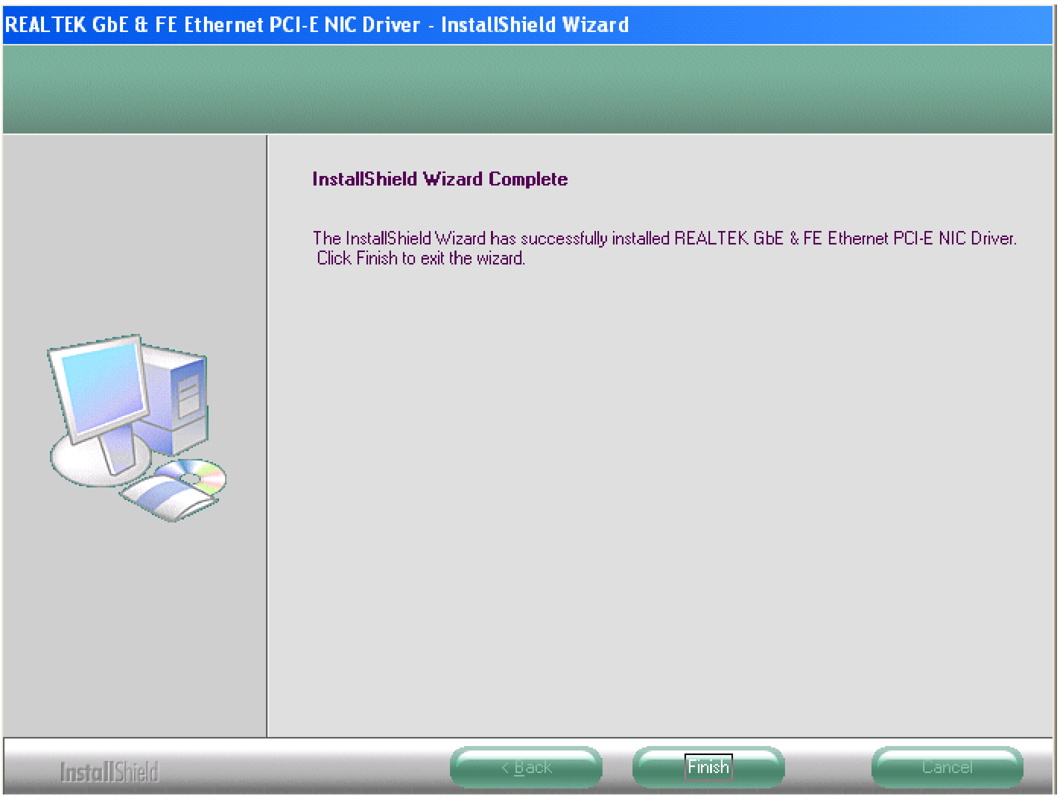
Follow the step-by-step installation process to install the LAN driver.






REALTEK GbE & FE Ethernet PCI-E NIC Driver - InstallShield Wizard
Setup Status
The InstallShield Wizard is installing REALTEK GbE & FE Ethernet PCI-E NIC Driver
Installing
C:\...\{C9BED750-1211-4480-B1A5-718A3BE15525}\data1.cab
InstallShield
Cancel


REALTEK GbE & FE Ethernet PCI-E NIC Driver - InstallShield Wizard
Setup Status
The InstallShield Wizard is installing REALTEK GbE & FE Ethernet PCI-E NIC Driver
Install Driver...
InstallShield
Cancel



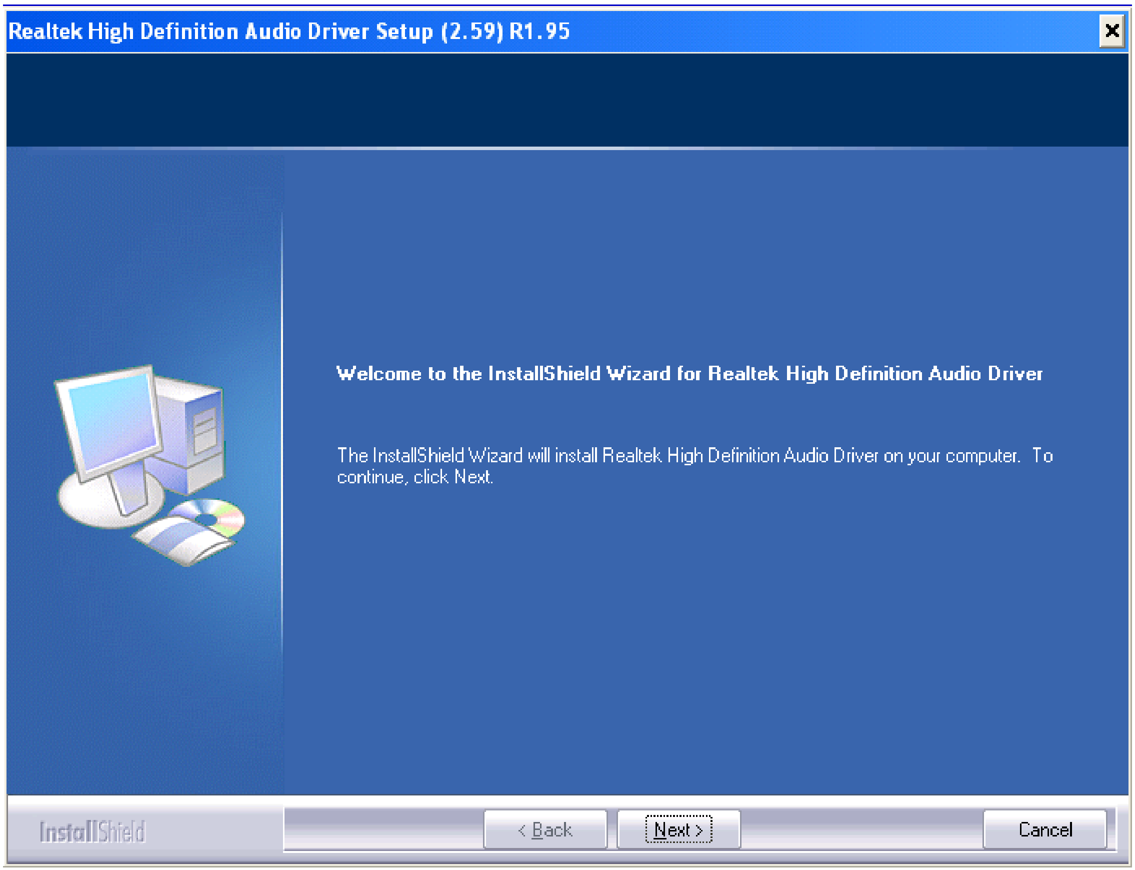
Click FINISH; A Driver Installation Complete.

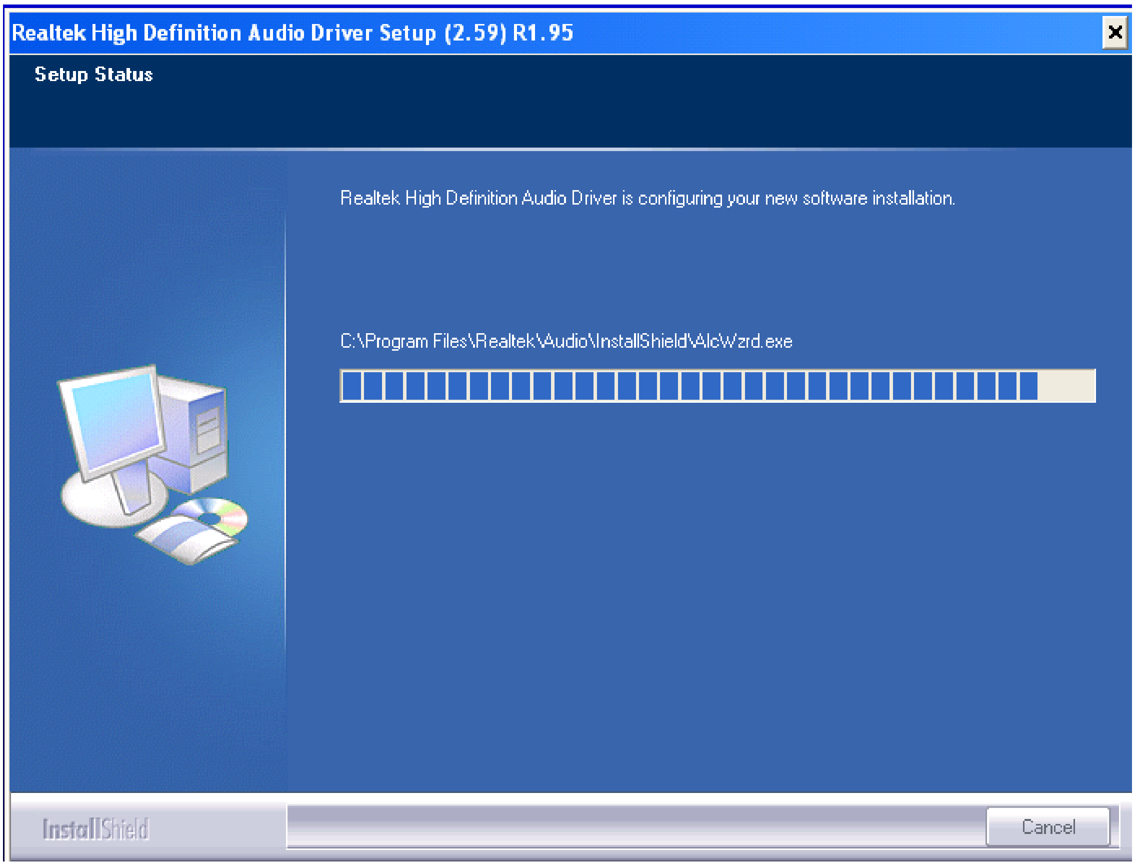
4.4 Realtek Audio Driver Installation

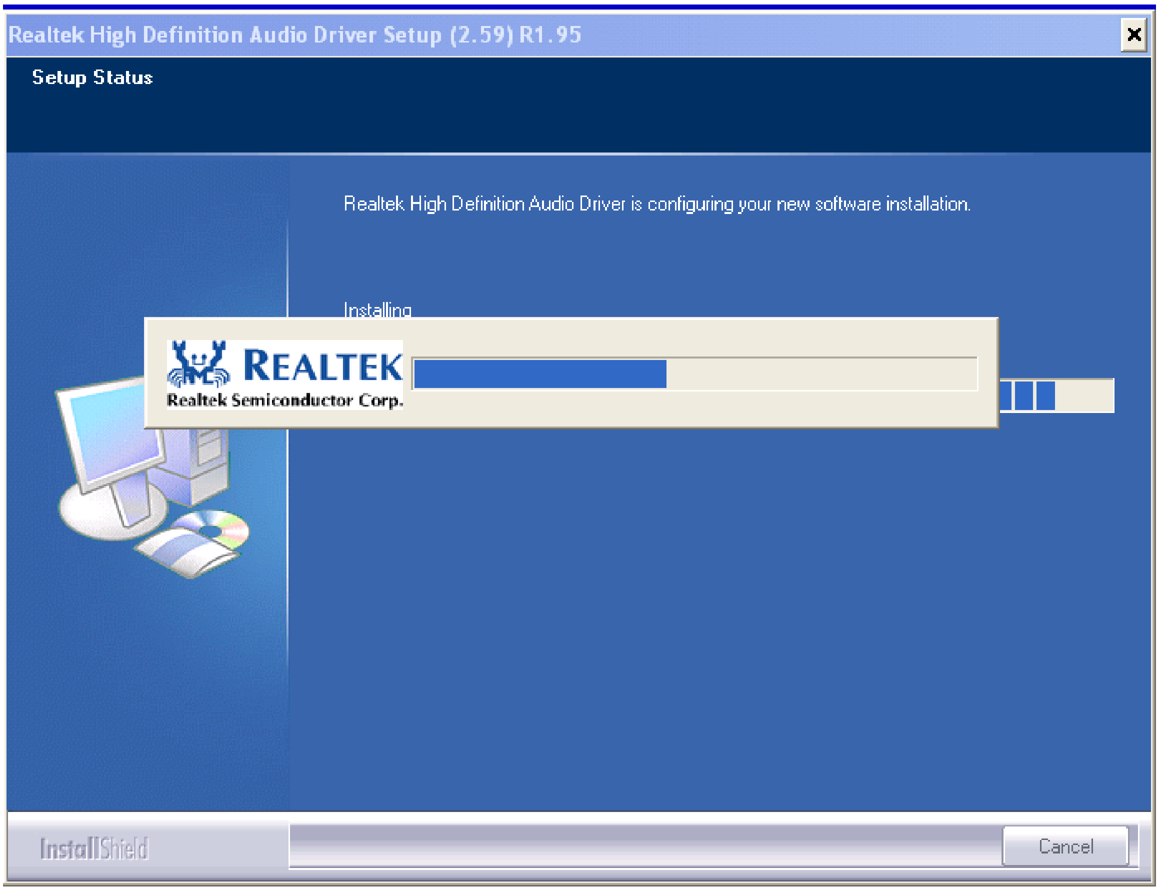
To install the Realtek Audio driver, please follow the steps below.
Select Audio from the list

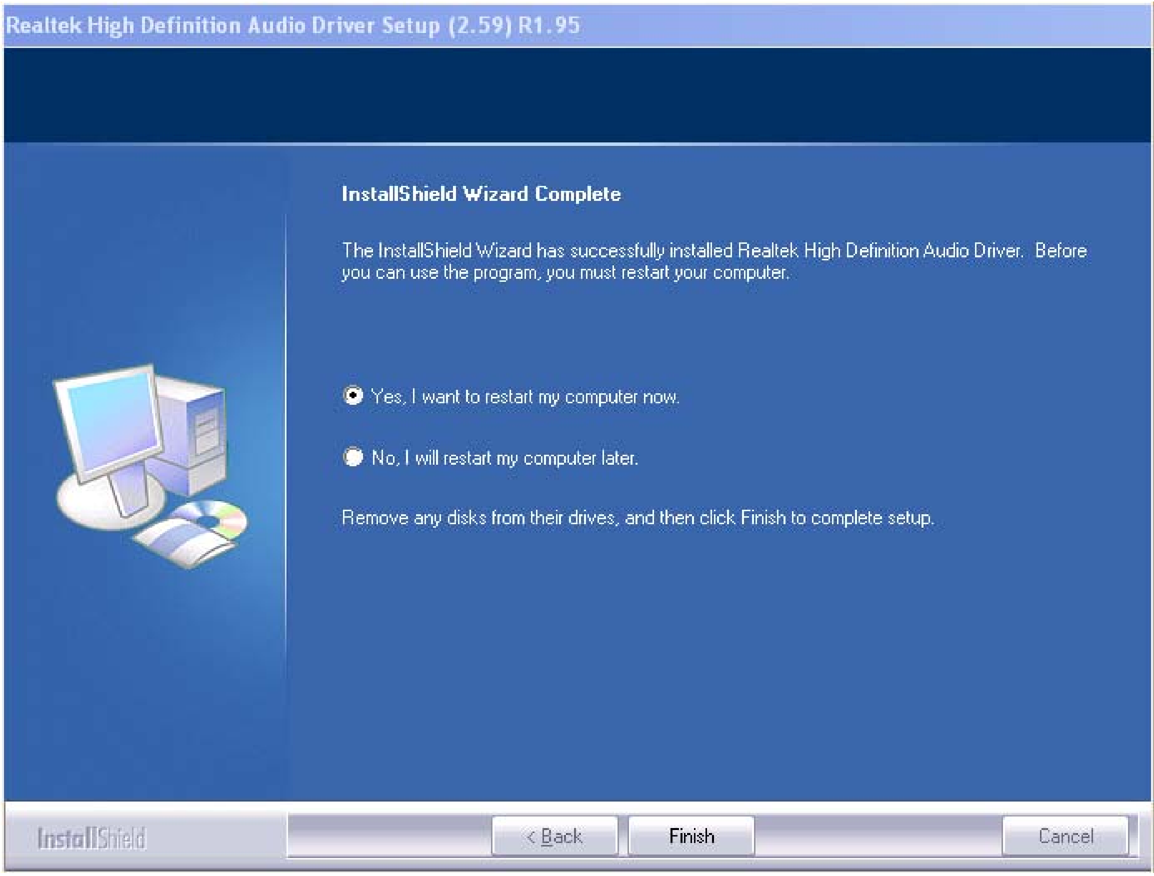


Follow the step-by-step installation process to install the Realtek HD Audio driver.


Realtek High Definition Audio Driver Setup (2.59) R1.95
Welcome to the InstallShield Wizard for Realtek High Definition Audio Driver
The InstallShield Wizard will install Realtek High Definition Audio Driver on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel


Realtek High Definition Audio Driver Setup (2.59) R1.95
Setup Status
Realtek High Definition Audio Driver is configuring your new software installation.
C:\Program Files\Realtek\Audio\InstallShield\AlcWzrd.exe
InstallShield
Cancel





Click FINISH; A Driver Installation Complete.

Chapter 5 Touch Screen Installation

This chapter describes how to install drivers and other software that will allow your PenMount 6000 Controller Board to work with different operating systems.

NOTE: PenMount USB drivers support up to 15 USB controllers.

5.1 Introduction to Touch Screen Controller Board

PenMount 6300 USB control board is a touch screen control board designed for USB interface and specific for 4, 5, 8-wire touch screens. It is designed with USB interface features with multiple devices supporting function. PenMount 6300 control board using PenMount 6000 controller that has been designed for those who may like and all-in-one solution with 10-bit A/D converter built-in to make the total printed circuit board denser, circuit diagram also designed for 12-bit ADC for optional. There are two connectors on this board, one connector is for 4, 5, 8-wire touch screen cable (optional), and another is for 4-pin USB A type cable (optional).

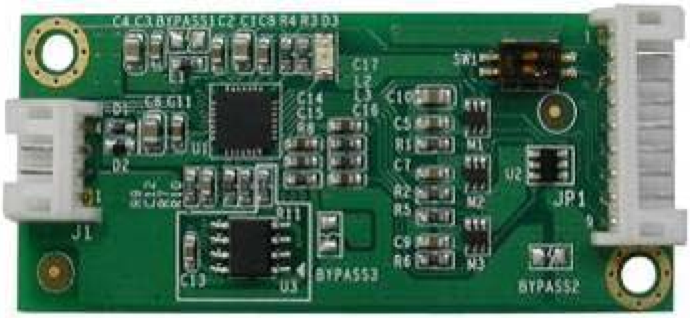


Figure 5.1: Bird's Eye View of Control Board

5.2 Windows 2000/XP/2003/Vista Universal Driver Installation for PenMount 6000 Series

Before installing the Windows 2000/XP driver software, you must have the Windows 2000/XP system installed and running on your computer. You must also have one of the following PenMount 6000 series controller or control boards installed: PM6500, PM6300.

5.2.1 Installing Software

If you have an older version of the PenMount Windows 2000/XP driver installed in your system, please remove it first. Follow the steps below to install the PenMount DMC6000 Windows 2000/XP driver.

1. Please make sure your PenMount 6000 device had plugged in advance. If your device uses RS232 interface, please plugged in before the machine is turned on. When the system first detects the controller board, a screen appears that shows “Unknown Device”. Do not use this hardware wizard. Press Cancel.

2. Insert the TOPSCCC product CD install **setup.exe.** the screen below would appear. Click touch panel driver

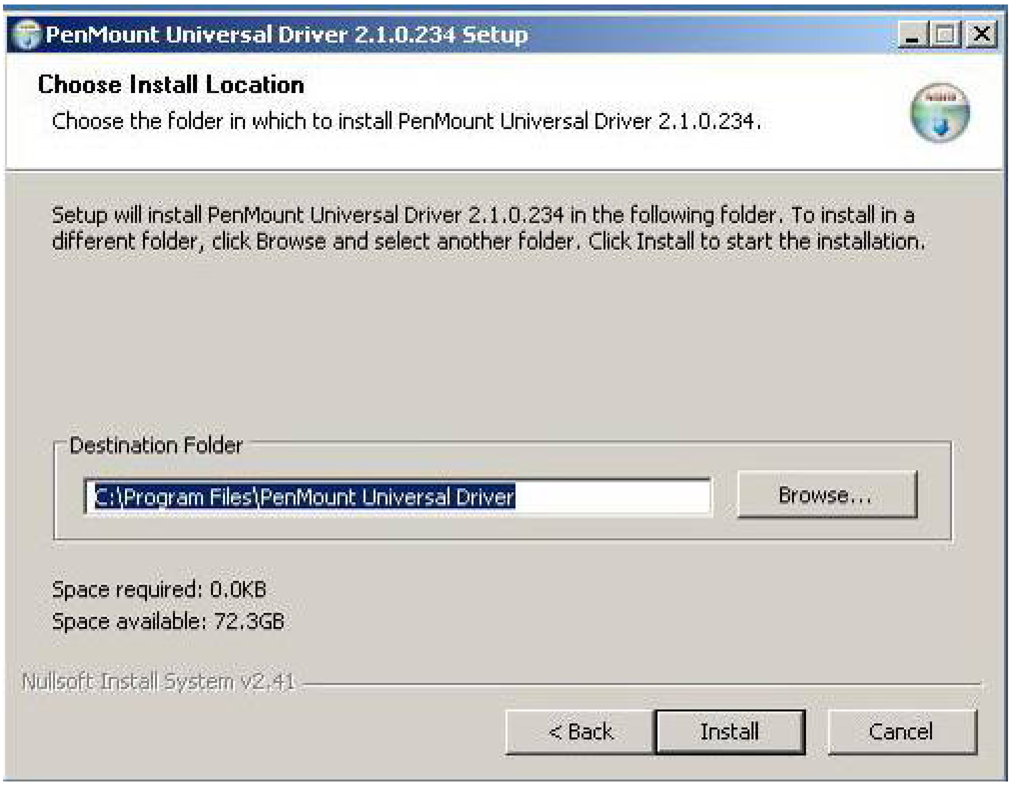




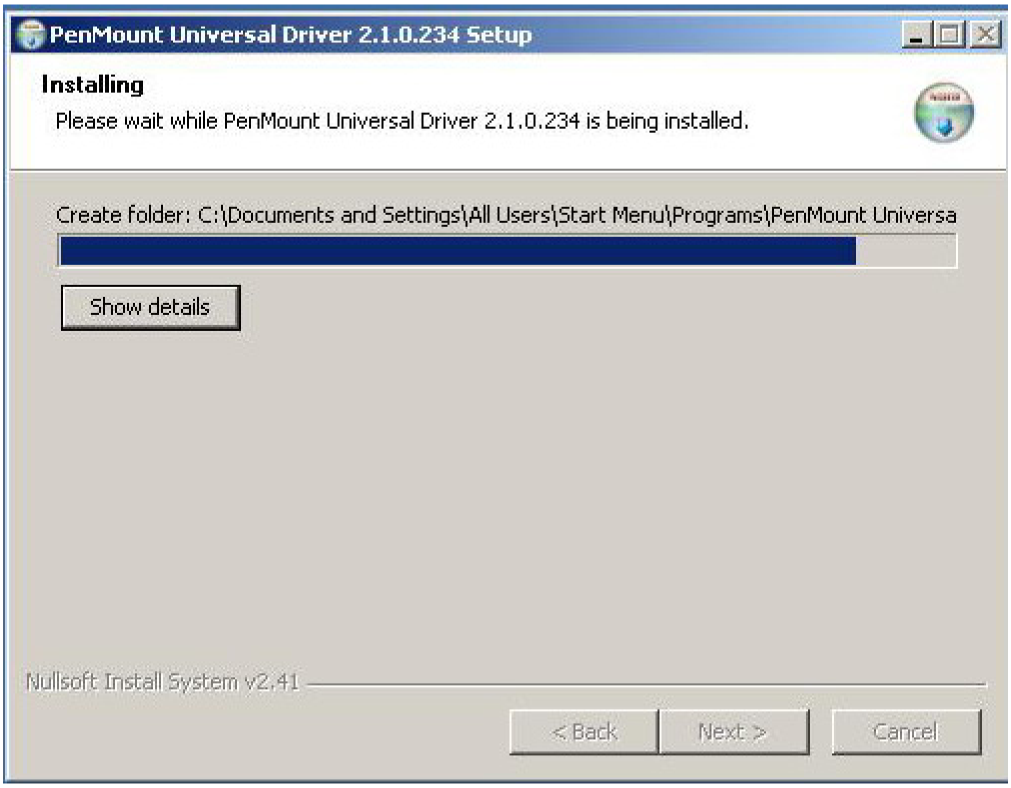
3. A License Agreement appears. Click "**I accept…**" and "**Next**"

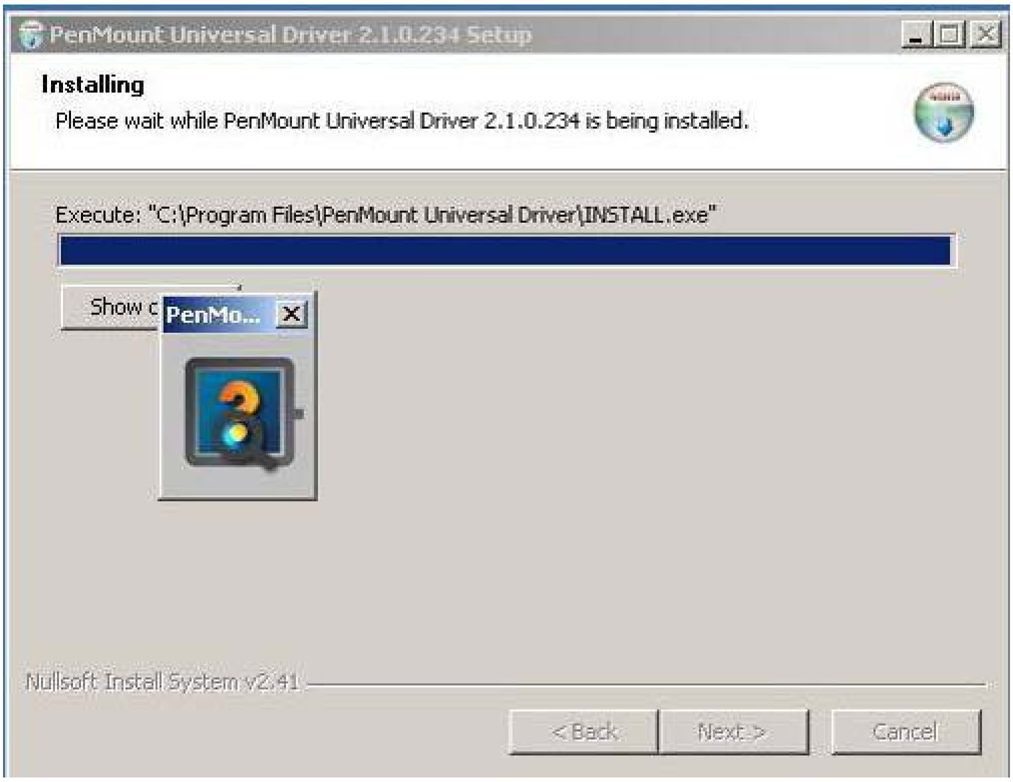


4. Ready to Install the Program. Click "**Install**"



5. Installing





6. The “Install Shield Wizard Completed” appears. Click “**Finish**”.



5.2.2 Software Functions

Upon rebooting, the computer automatically finds the new 6000 controller board. The touch screen is connected but not calibrated. Follow the procedures below to carry out calibration.

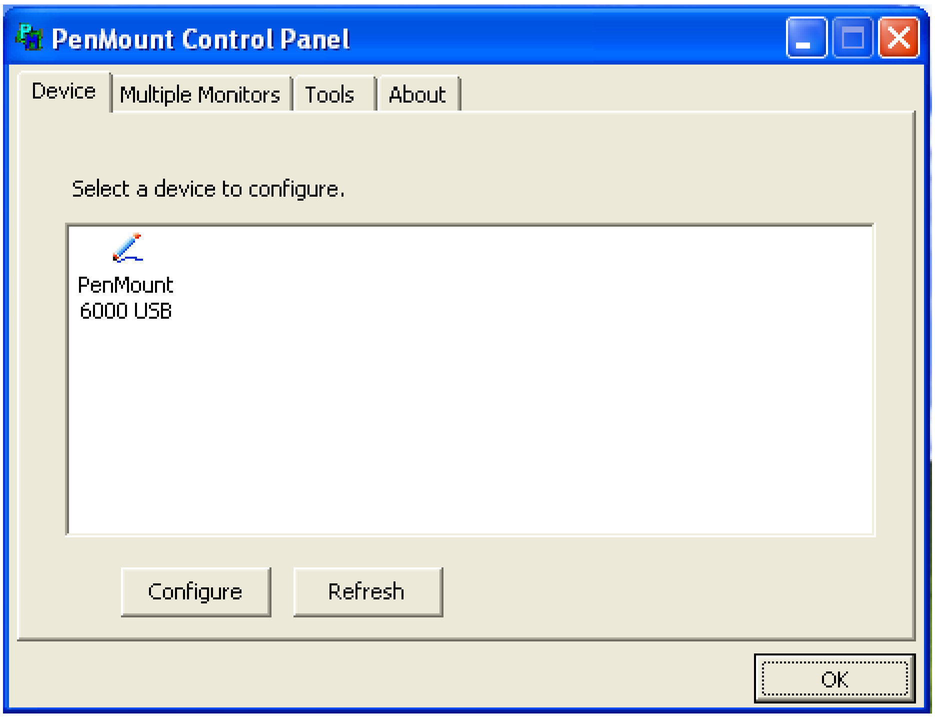
1. After installation, click the PenMount Monitor icon “PM” in the menu bar.
2. When the PenMount Control Panel appears, select a device to “Calibrate.”

PenMount Control Panel

The functions of the PenMount Control Panel are **Device, Multiple Monitors** ,**Tools** and **About**, which are explained in the following sections.

Device

In this window, you can find out that how many devices be detected on your system.



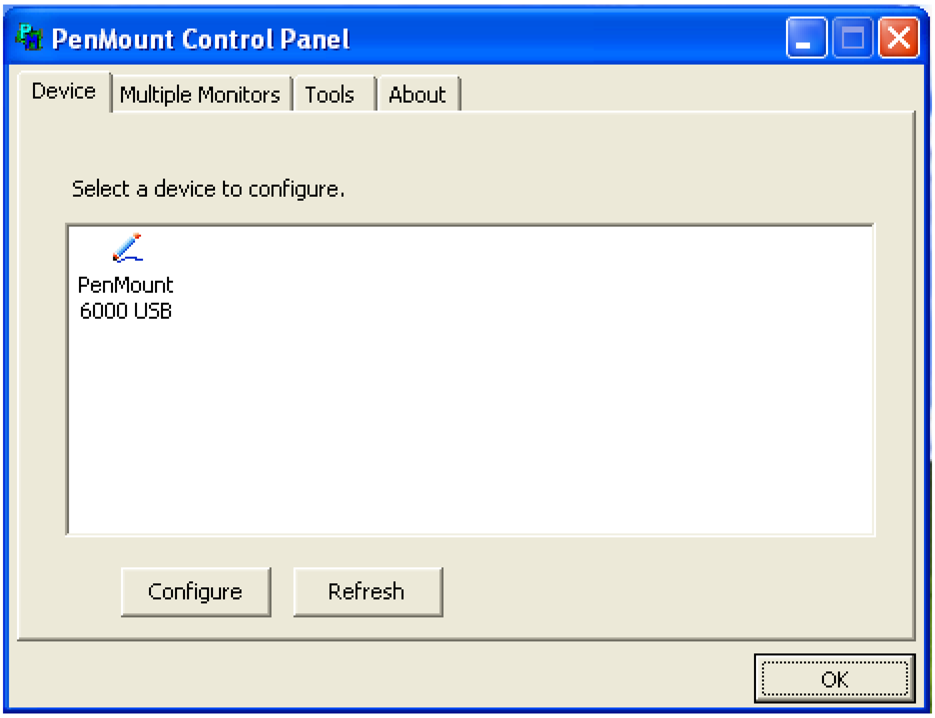
Calibrate

This function offers two ways to calibrate your touch screen. ‘Standard Calibration’ adjusts most touch screens. ‘Advanced Calibration’ adjusts aging touch screens.

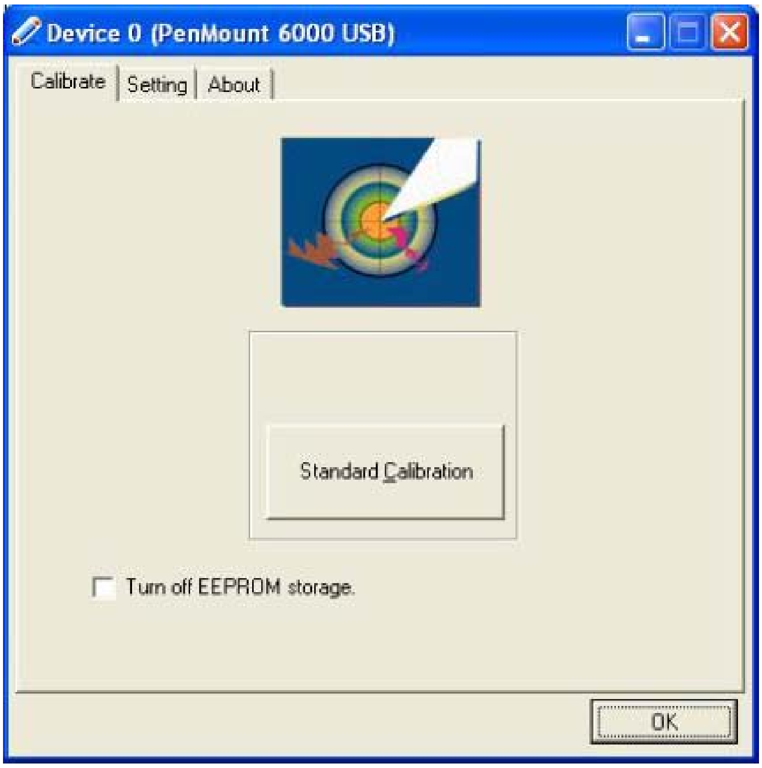
Standard Calibration	**Click this button and arrows appear pointing to red squares. Use your finger or stylus to touch the red squares in sequence. After the fifth red point calibration is complete. To skip, press ‘ESC’.**

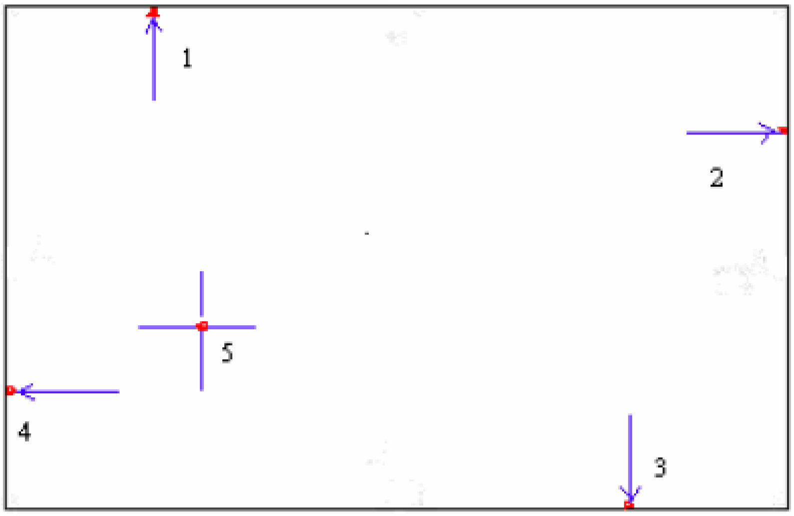
Advanced Calibration	**Advanced Calibration uses 4, 9, 16 or 25 points to effectively calibrate touch panel linearity of aged touch screens. Click this button and touch the red squares in sequence with a stylus. To skip, press ESC'.**
Command Calibration	**Command call calibration function. Use command mode call calibration function, this can uses Standard, 4, 9, 16 or 25 points to calibrate** E.g. Please run ms-dos prompt or command prompt c:\Program Files\PenMount Universa Driver\Dmcctrl.exe -calibration 0 (Standard Calibration) Dmcctrl.exe - calibration ($) 0= Standard Calibration 4=Advanced Calibration 4 9=Advanced Calibration 9 16=Advanced Calibration 16 25=Advanced Calibration 25

1. Please select a device then click "Configure". You can also double click the device too.



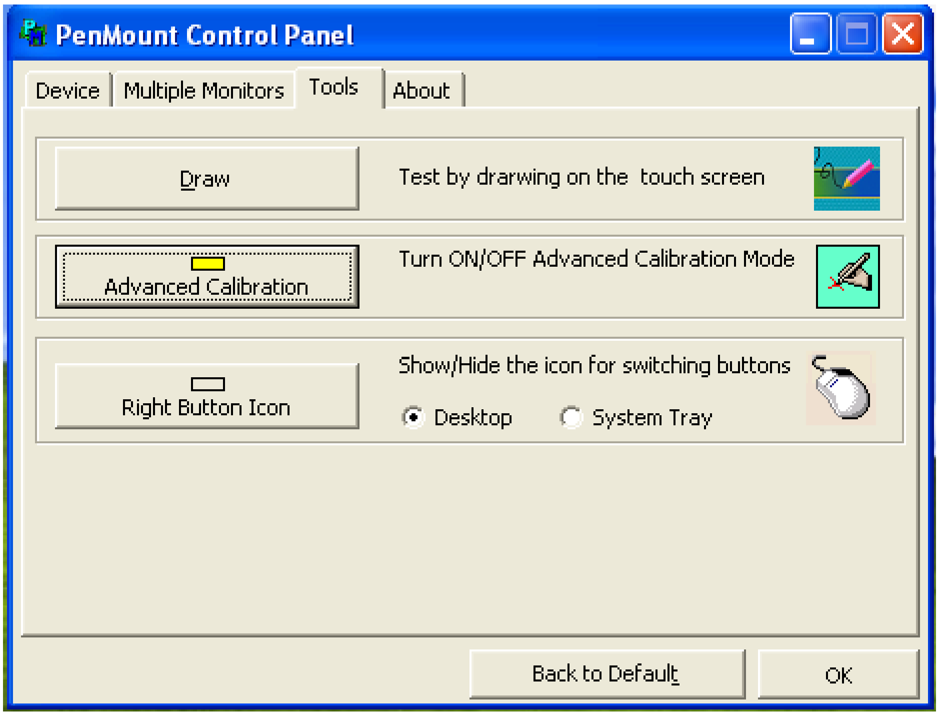
2.Click "Standard Calibration" to start calibration procedure



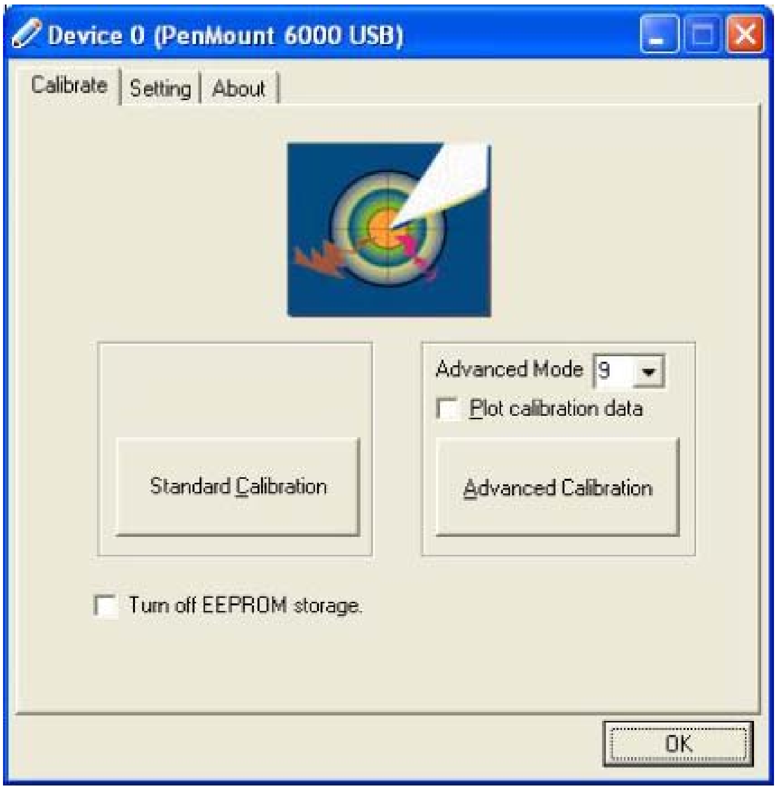


NOTE: The older the touch screen, the more Advanced Mode calibration points you need for an accurate calibration. Use a stylus during Advanced Calibration for greater accuracy. Please follow the step as below:

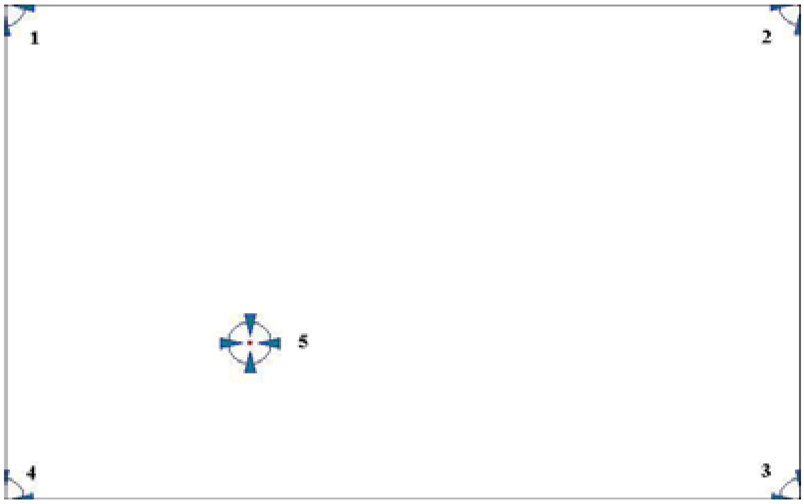
3.Come back to "PenMount Control Panel" and select "**Tools**" then Click "**Advanced Calibration**".



Select “**Device**” to calibrate, then you can start to do “Advanced Calibration”.



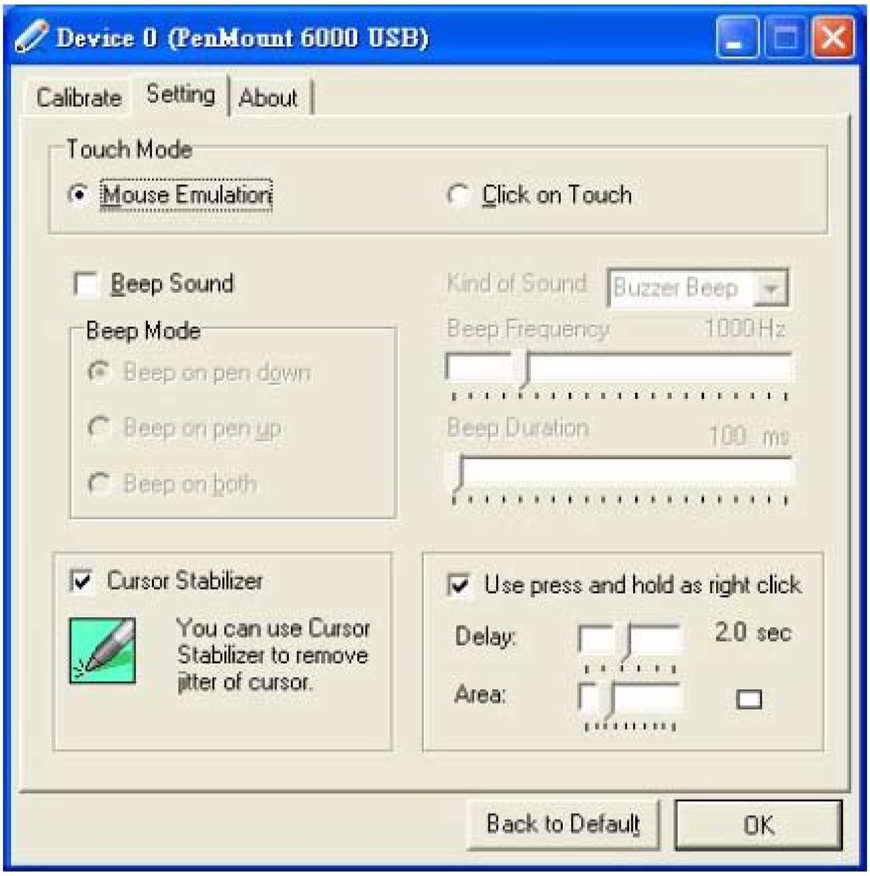
NOTE: Recommend to use a stylus during Advanced Calibration for greater accuracy.



Plot Calibration Data	Check this function and a touch panel linearity comparison graph appears when you have finished Advanced Calibration. The blue lines show linearity before calibration and black lines show linearity after calibration.
Turn off EEPROM storage	The function disable for calibration data to write in Controller. The default setting is Enable

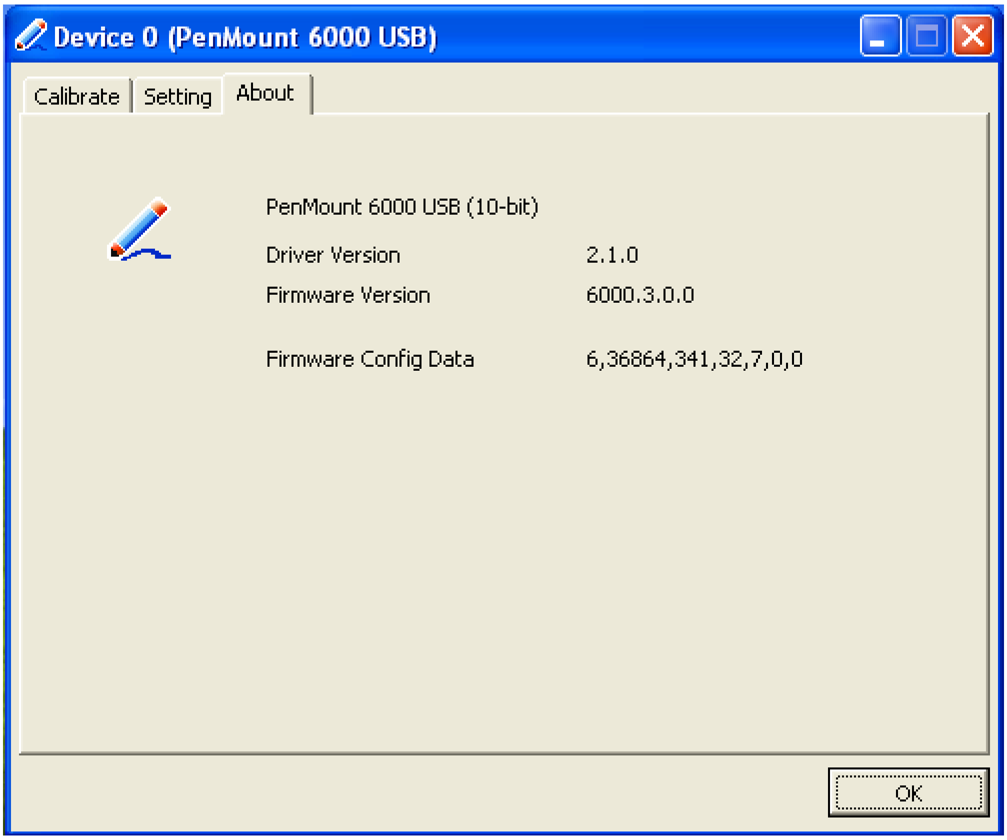
Setting

Touch Mode	This mode enables and disables the mouse's ability to drag on-screen icons—useful for configuring POS terminals. Mouse Emulation – Select this mode and the mouse functions as normal and allows dragging of icons. Click on Touch – Select this mode and the mouse only provides a click function, and dragging is disabled
Beep Sound	Enable Beep Sound – turns beep function on and off Beep on Pen Down – beep occurs when pen comes down Beep on Pen Up – beep occurs when pen is lifted up Beep on both – beep occurs when comes down and lifted up Beep Frequency – modifies sound frequency Beep Duration – modifies sound duration
Cursor Stabilizer	Enable the function support to prevent cursor shake.
Use press and hold as right click	You can set the time out and area for you need



About

This panel displays information about the PenMount controller and driver version.



Multiple Monitors

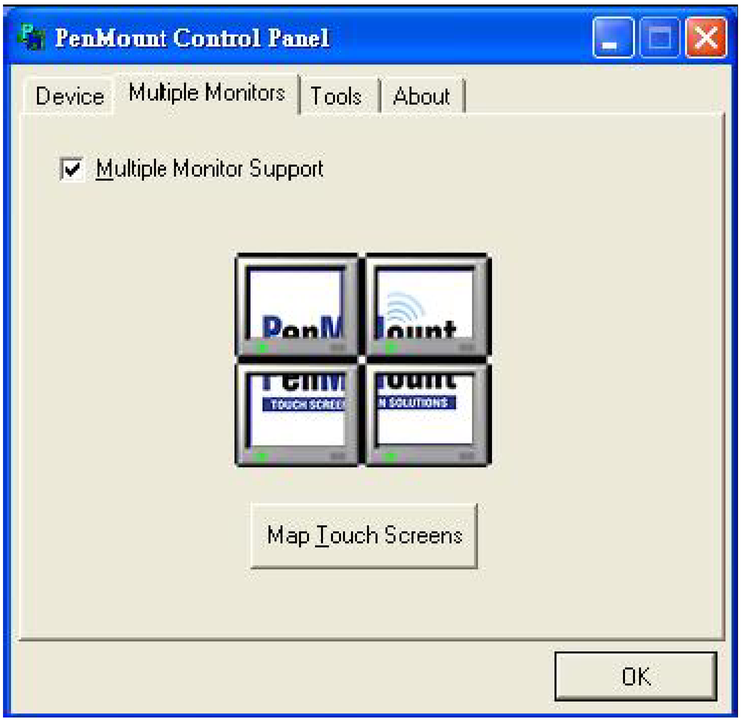
Multiple Monitors supports from two to six touch screen displays for one system. The PenMount drivers for Windows 2000/XP support Multiple Monitors. This function supports from two to six touch screen displays for one system. Each monitor requires its own PenMount touch screen control board, either installed inside the display or in a central unit. The PenMount control boards must be connected to the computer COM ports via the RS-232 interface. Driver installation procedures are the same as for a single monitor. Multiple Monitors supports the following modes:

Windows Extend Monitor Function
Matrox DualHead Multi-Screen Function
nVidia nView Function

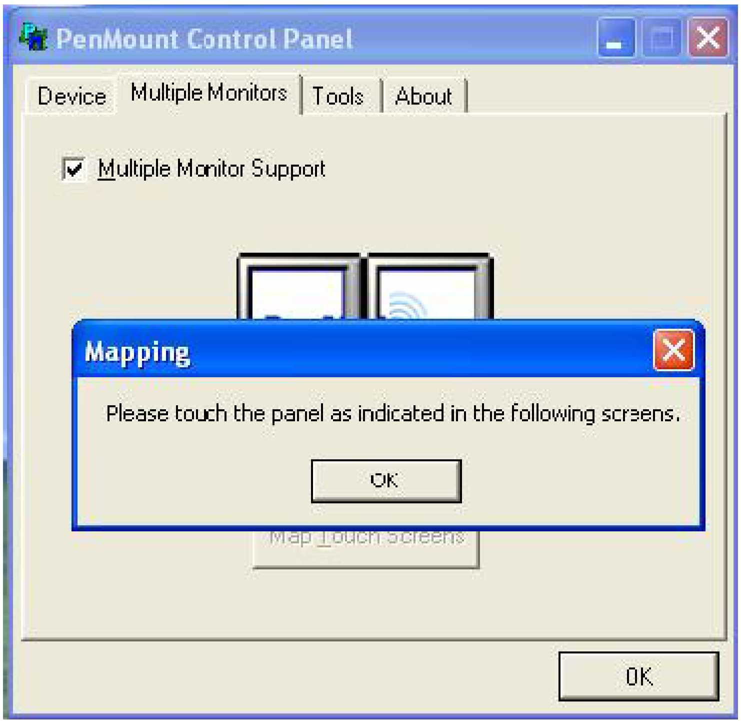
NOTE: The Multiple Monitors function is for use with multiple displays only. Do not use this function if you have only one touch screen display. Please note once you turn on this function the Rotating function is disabled.

Enable the multiple display function as follows:

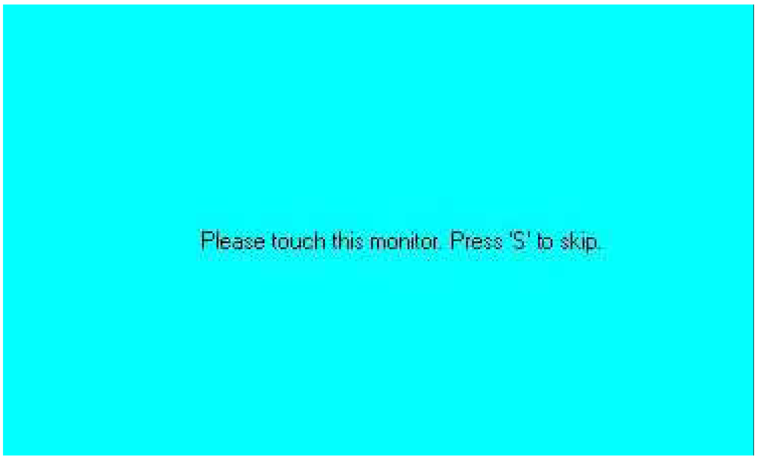
1. Check the "**Multiple Monitor Support"** box; then click "**Map Touch Screens"** to assign touch controllers to displays.



2. When the mapping screen message appears, click "**OK"**



3. Touch each screen as it displays **"Please touch this monitor. Press 'S' to skip"** Following this sequence and touching each screen is called **mapping the touch screens**.



4. After the setting procedure is finished, maybe you need to calibrate for each panel and controller

NOTES:

1. If you used a single VGA output for multiple monitors, please do not use the **Multiple Monitors** function. Just follow the regular procedure for calibration on each of your desktop monitors.

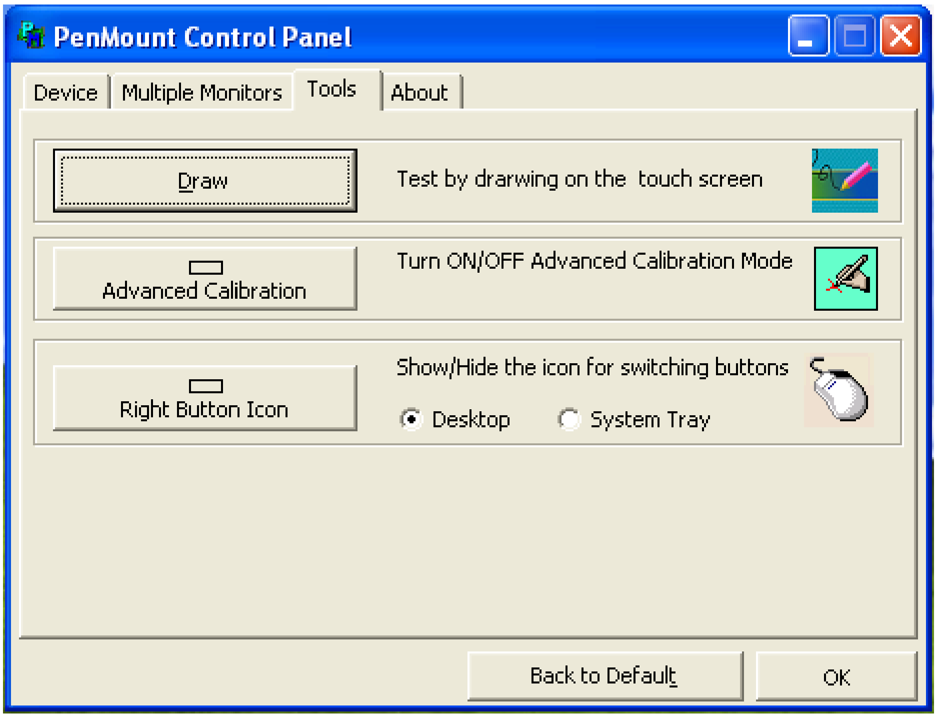
2. The Rotating function is disabled if you use the Multiple Monitors function.

3. If you change the resolution of display or screen address, you have to redo **Map Touch Screens** so the system understands where the displays are.

4. If you more monitor mapping one touch screen, **Please press 'S' to skip mapping step.**

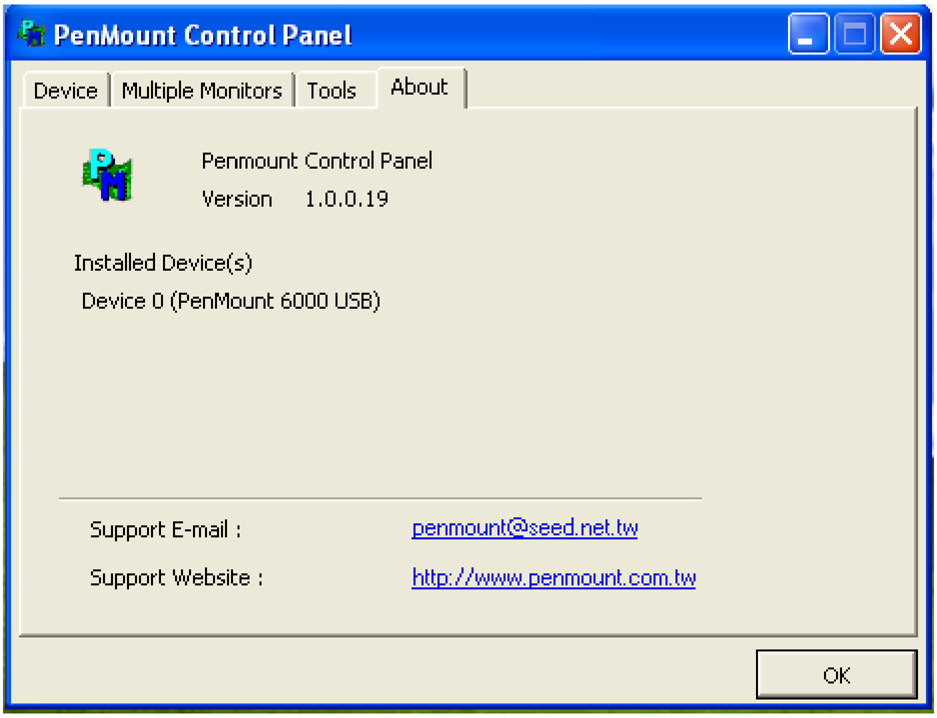
Tools

Draw	**Tests or demonstrates the PenMount touch screen operation.**
Advanced Calibration	**Enable Advanced Calibration function**
Right Button Icon	**Enable right button function. The icon can show on Desktop or System Tray (menu bar).**



About

You can see how many devices of PenMount controller that are plugged to your system

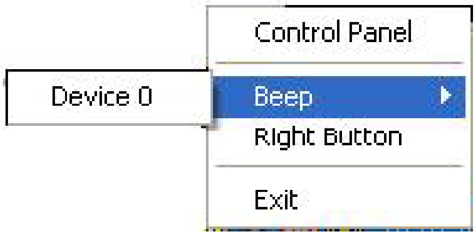


PenMount Monitor Menu Icon

The PenMount monitor icon (PM) appears in the menu bar of Windows 2000/XP system when you turn on PenMount Monitor in PenMount Utilities.



PenMount Monitor has the following function



Control Panel	Open Control Panel Windows
Beep	Setting Beep function for each device
Right Button	When you select this function, a mouse icon appears in the right-bottom of the screen.  Click this icon to switch between Right and Left Button functions.
Exit	Exits the PenMount Monitor function.

PenMount Rotating Functions

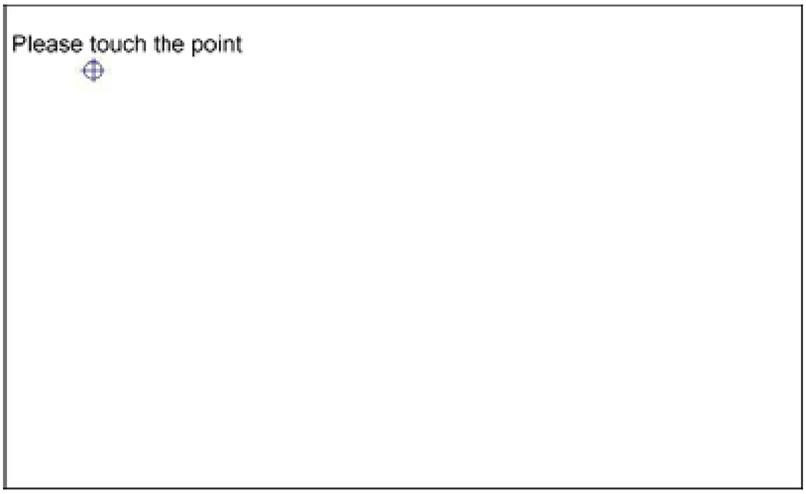
The PenMount driver for Windows 2000/XP supports several display rotating software packages.

Windows Me/2000/XP support display rotating software packages such as:

- Portrait's Pivot Screen Rotation Software
- ATI Display Driver Rotate Function
- nVidia Display Driver Rotate Function
- SMI Display Driver Rotate Function
- Intel 845G/GE Display Driver Rotate Function

Configuring the Rotate Function

1. Install the rotation software package.
2. Choose the rotate function (0°, 90°, 180°, 270°) in the 3rd party software. The calibration screen appears automatically. Touch this point and rotation is mapped.



NOTE: The Rotate function is disabled if you use Monitor Mapping